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Welcome

Congratulations on your purchase of this Sony VAIO® computer, and welcome to the VAIO User Guide.
This User Guide provides detailed information on all aspects of using your new VAIO computer, from keyboard functions to preinstalled software applications.
In the left navigation window, click the topics you want to learn more about, and that information will be displayed in this main window.

✍ Click here to find the latest updates and supplemental information about your computer.

Using Your VAIO Notebook

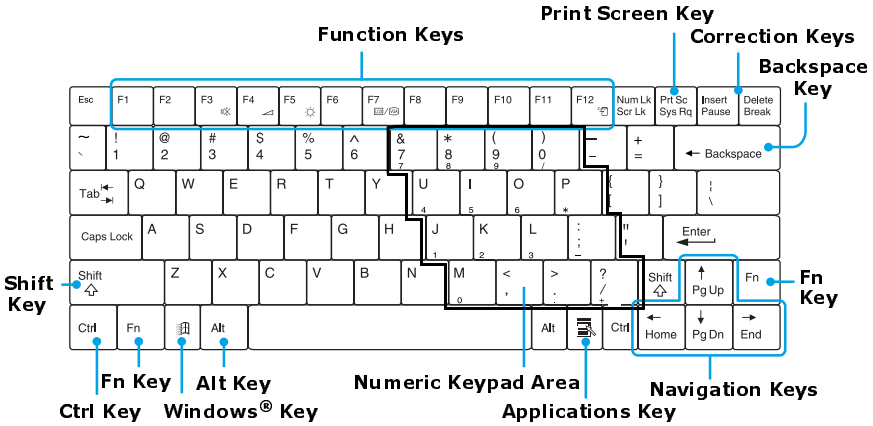
This section describes the following aspects of your new computer:

- ❑ Using the Keyboard
- ❑ Using the Touchpad
- ❑ VAIO Action Setup
- ❑ Using the Center Jog Dial Control
- ❑ Using a PC Card
- ❑ Using Memory Stick Media
- ❑ Using Power Saving Modes
- ❑ Connecting a Phone Line
- ❑ Connecting to a LAN
- ❑ Connecting to a Wireless LAN

Using the Keyboard

Your keyboard is very similar to that of a typewriter, but the keyboard has additional keys that perform specific computer-related tasks.

Keyboard



Functions of the keyboard keys

Key	Description
Numeric keypad area	Contains the keys found on a typical calculator. Use the numeric keypad area to type numbers or to perform mathematical calculations such as addition and subtraction. Note: You must press the Num Lock key to activate the numeric keypad. (When you do so, the Num Lock indicator will be on.) Press the Num Lock key again to deactivate it.
Navigation keys	The Left/Right/Up/Down arrows are devoted to move the cursor on the screen and also function as the Home, End, Page Up, and Page Down keys, respectively.
Correction keys	The Insert, Backspace, and Delete keys enable you to make corrections in your documents.
Function keys	The 12 function keys along the top of the keyboard are used to perform designated tasks. For example, in many applications, F1 is the Help key. The task associated with each function key may vary from one application to the next.
Escape key	The Esc (Escape) key is used to cancel commands.
Print Screen key	The Print Screen key takes an electronic snapshot of the screen and places it in the Windows® Clipboard. You can then paste the screen shot into a document and print it.
Operator keys	Several keys are always used with at least one other key: Ctrl, Alt, and Shift. When held down with another key, the Ctrl (Control) and Alt (Alternate) keys offer another way to give commands. For example, in many applications, instead of choosing the Save command from a menu, you can hold down Ctrl and press S (referred to as Ctrl+S). The Shift key operates the same way as on a typewriter; it is used to produce capital letters or special symbols such as @ and $.

Key	Description
Windows key	The key with the Windows® logo displays the Windows Start menu; it is the equivalent of clicking the Start button on the task bar. See “Combinations and functions with the Windows key” for more information.
Fn key	The Fn key is used in combination with other keys to issue commands. See “Combinations and functions with the Fn key” for more information.
Applications key	The Applications key displays a shortcut menu of context-sensitive choices. Pressing this key is the equivalent of clicking the right mouse button.

Indicators

Indicator	Function
Power	Light is green when the notebook is powered on, flashes amber when the notebook is in Standby mode, and turns off when the notebook is in Hibernate mode or is powered off.
Battery	Indicates the status of the battery, which is attached at the rear of the notebook.
Memory Stick	Indicates the Memory Stick® slot is in use.
Docking Station	Indicates the docking station is in use.

Indicator lights

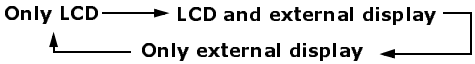
Light	On	Off
Hard disk	Data is being read from or written to the hard drive. Do not enter Standby mode or turn off the notebook when this indicator light is on.	The hard drive is not being accessed.
Num Lock	The number keys in the numeric keypad are active.	The character keys in the keypad area are active.
Caps Lock	Letters appear in uppercase as you type. The Shift key lowers the case of typed letters when Caps Lock is on.	Letters appear in lower case as you type (unless you hold down the Shift key).
Scroll Lock	The screen scrolls differently. (Exactly how it scrolls depends on the specific application. It has no effect in many applications.)	Information moves across the display normally.

Combinations and functions with the Windows key

Combination	Function
+ F1	Displays VAIO Help and Support Center.
+ Tab	Switches the selected button on the taskbar.
+ E	Displays Windows® Explorer.
+ F	Displays the Search window to find a file or folder. This is the equivalent of selecting Search from the Start menu.

Combination	Function
+ Ctrl + F	Displays the Search Results: Computers window where you can locate other computers. This is the equivalent of selecting Search and then Computers from the Start menu.
+ M	Minimizes all displayed windows.
Shift + + M	Returns all minimized windows to their previous size.
+ R	Displays the Run window. This is the equivalent of selecting Run from the Start menu.
Fn + + Insert	Displays the System Properties window. This is the equivalent of selecting Control Panel and then System from the Start menu.

Combinations and functions with the Fn key

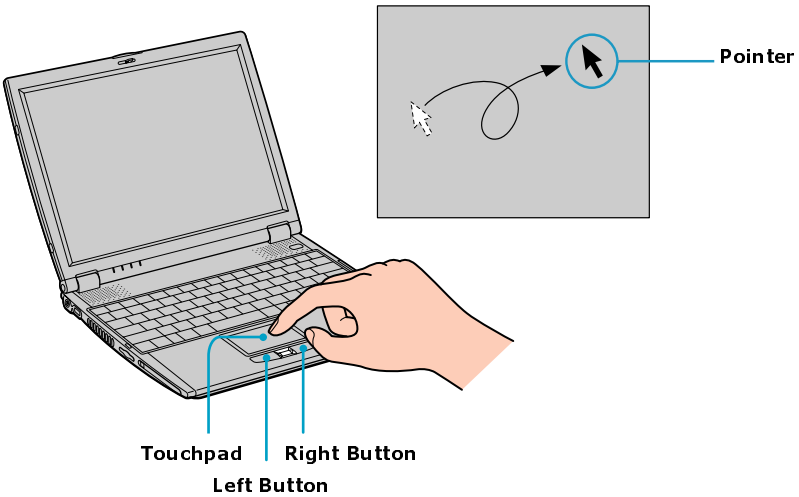
Combination/ Feature	Functions
Fn+ (F3) Speaker switch	Toggles the built-in speaker off and on.
Fn+ (F4) Speaker volume	Adjusts the built-in speaker volume. To increase volume, press Fn+F4, then ↑ or →. To decrease volume, press Fn+F4, then ↓ or ←.
Fn+ (F5) Brightness control	Adjusts brightness of the LCD. To increase light intensity, press Fn+F5, then ↑ or →. To decrease light intensity, press Fn+F5, then ↓ or ←.
Fn+ LCD / VGA (F7) Switch to the external display	Toggles through the LCD and external display. 
Fn+ (F12) Hibernate	Provides for the lowest level of power consumption. When you execute this command, the state of the system and state of the peripheral devices are written to the hard disk and the system power is turned off. To return the system to the original state, use the power switch to turn on power.
Fn + Esc Standby	Puts the system into Standby mode, a power management state. To return the system to the active state, press any key or press the power button on your notebook.
Fn +F Display control	Minimizes or maximizes the display window. If the default display resolution is reduced, this function maximizes the display resolution to fit the screen size. Maximizing the display window allows you to view the display at a greater resolution.

✍ You can also carry out these functions using the center Jog Dial™ control. Some functions are not available until Windows® launches.

Using the Touchpad

The keyboard contains a cursor-pointing device called a touchpad. You can point to, select, drag, and scroll objects on the screen using the built-in touchpad.

Touchpad



Actions	*Descriptions*
Point	Slide one finger on the touchpad to place the pointer on an item or object.
Click	Press the left button once.
Double-click	Press the left button twice.
Right-click	Press the right button once. In many applications, this action displays a shortcut menu of context-sensitive choices.
Drag	Slide one finger while pressing the left button.
Scroll	Move your finger along the right edge of the touchpad to scroll vertically. Move your finger along the bottom edge to scroll horizontally. (The scroll function is available only with applications that support a touchpad scroll feature.)

The Mouse Properties dialog box lets you customize your mouse and touchpad features, such as touch sensitivity, motion, and buttons.

To open the Mouse Properties dialog box:

1. Click Start on the Windows taskbar, and then Control Panel.
2. Click Printers and Other Hardware, and then Mouse. The Mouse Properties dialog box opens.

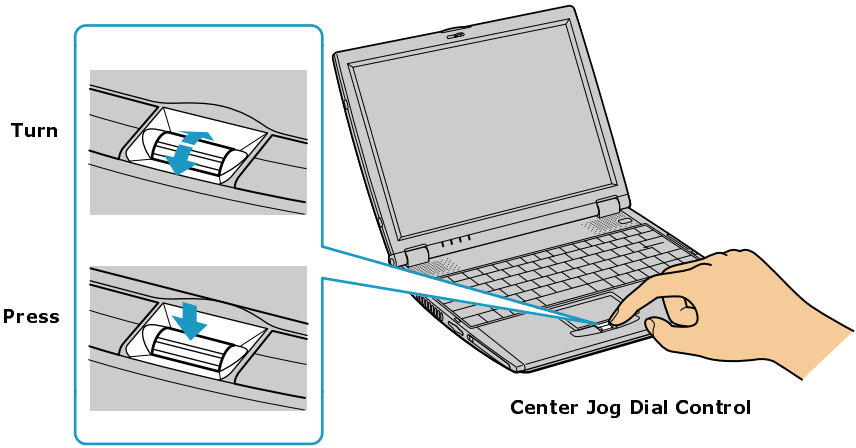
VAIO Action Setup

VAIO Action Setup manages the settings for your notebook's center Jog Dial™ control and Timer. An overview of some of the functions controlled by VAIO Action Setup is provided below. For more information on changing the settings using VAIO Action Setup, right-click the Jog Dial Utility icon or in the taskbar and click Help Topics.

Using the Center Jog Dial Control

Your notebook is equipped with a center Jog Dial™ control located below the touchpad and between the left and right buttons. The center Jog Dial control enables you to open an application, folder, or document from a predefined list by rotating and pressing the center Jog Dial control. In addition, when you press the center Jog Dial control, you can turn on your notebook automatically and start the selected application or document.

Center Jog Dial Control



The Jog Dial control window always appears in the display. It is either in the launcher mode or in the guide mode.

Using the center Jog Dial control

This section explains how to use the center Jog Dial control. For information on how to change the settings of the center Jog Dial control, right-click the Jog Dial utility icon or in the task tray and click Help Topics.

Launcher mode

The Jog Dial control window is in launcher mode until a software application is launched or the Jog Dial control window becomes active. When you select an item in the Jog Dial window and it is displayed between orange bars, you can press the center Jog Dial control to view a submenu of that item.

Using Launcher mode

To use the center Jog Dial control, click the Jog Dial control window or the Jog Dial utility icon in the task tray. Alternatively, you can press the Ctrl key and the center Jog Dial control while the Jog Dial window is active to switch to launcher mode.

Jog Dial Launcher

To select a desired item, proceed as follows:

1 Rotate the center Jog Dial control to select the item you want, then press the center Jog Dial control. The Jog Dial launcher window switches to guide mode and shows the function of the center Jog Dial control.

Jog Dial Guide

2 Rotate or press the center Jog Dial control to use the desired function.

3 To select another item, repeat steps 1 through 3 above.

Using Guide Mode

The Jog Dial control window is in the guide mode when software is in use and the software window is active. Depending on the software you are using, you can select items from the displayed list using the center Jog Dial control. You can switch between guide mode and launcher mode by pressing the Ctrl key and the center Jog Dial control.

The Jog Dial control window displays the function of the center Jog Dial control.

Using the center Jog Dial control with Sony software

If Sony software that supports the center Jog Dial control is active, you can use the functions of the center Jog Dial control that are allocated to that software. For more information on functions allocated to software, see the software application's online Help.

Using the center Jog Dial control with other software

If the software you are using does not support the center Jog Dial control, you can still use the center Jog Dial control to scroll the window or adjust the window size.

Using a dialog box

When a window such as Screen Properties is active, the Dialog box is displayed in the Jog Dial window. You can select an item in the window by rotating the center Jog Dial control. Pressing the center Jog Dial control is the equivalent of pressing Enter or Select.

Jog Dial Guide Dialog Box

Using a PC Card

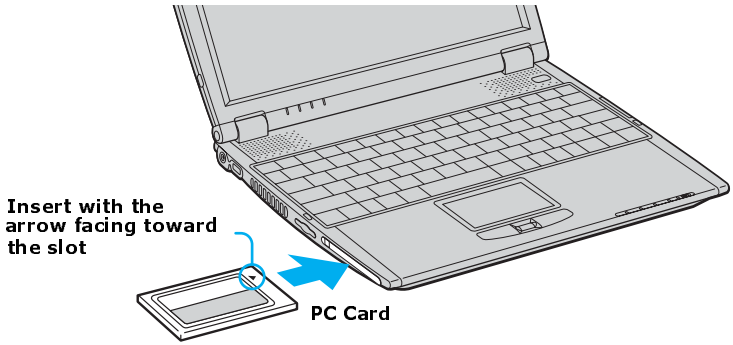
Your notebook includes one PC Card slot. A PC Card enables you to connect portable external devices, such as another hard disk drive, to your notebook. It also lets you connect to a network using a PC Network Interface Card (NIC).

The PC Card slot accommodates one Type I or II PC Card. This slot is compatible with CardBus. You do not need to turn off your notebook before inserting or removing a PC Card.

To insert a PC Card

1 Insert the PC Card into the PC Card slot. Make sure the front label of the PC Card is facing up.

Inserting a PC Card



2 Push the the PC Card gently into the slot. The PC Card is automatically detected by your system. The Unplug or Eject Hardware icon appears in the taskbar.

Do not force a PC Card into the slot. It may damage the connector pins.

If you have difficulty inserting a card, check that you are inserting the card with the correct orientation.

Do not carry your notebook while the head of the PC Card is out of the slot. Pressure or shock may damage the connector pins.

To remove a PC Card

If your notebook is turned on, follow these instructions. If your notebook is turned off, skip to step number 5.

1 Close all applications that use the PC Card; otherwise, data may be lost.

2 Double-click the green arrow icon in the taskbar.

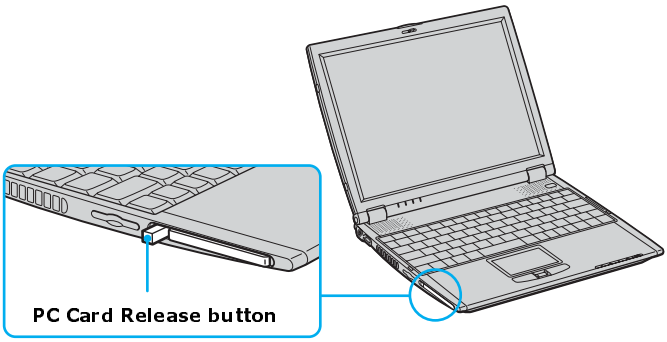
3 Select an option in the Hardware devices box, and click Stop. The Stop a Hardware device window opens.

4 Click OK to confirm your selection, and then Close.

5 Press the PC Card Release button. The Release button pops out.

6 Press the PC Card Release button a second time (in some cases). Remove the card.

Removing PC Card



Do not choose a USB disk or a Sony i.LINK® optical drive in the Stop a Hardware device dialog box.

If you removed a Sony i.LINK optical drive by mistake, disconnect the docking station and reconnect it. See "Disconnecting the notebook from the docking station" for more information.

Notes on using PC Cards

- For some PC Cards, if you alternate between normal power operation and the Standby or Hibernate modes while the card is inserted, you may find that a device connected to your system is not recognized. Reboot your system to correct the problem.
- Some PC Cards may require that you disable idle devices when using the PC Card. You can use Sony Notebook Setup to disable devices. See "Displaying the Sony Notebook Setup Screen".
- Make sure you use the most recent software driver provided by the PC Card manufacturer.
- If an exclamation mark (!) appears on the Device Manager tab in the System Properties dialog box, remove the software driver and then reinstall it.

- You may not be able to use some PC Cards or some functions of the PC Card with this notebook. If you have difficulty inserting a PC Card, check that you are orienting the card correctly. See the manual that came with your PC Card for more information on its use.

Using Memory Stick Media

Memory Stick® media is a compact, portable, and versatile recording medium that has a data capacity exceeding that of a floppy disk. The medium is specially designed for exchanging and sharing digital data with compatible products. Because it is removable, you can use the media for external data storage.

Types of Memory Stick media

You can use these types of Memory Stick media with your notebook:

- MagicGate™ Memory Stick* media (hereafter called MG Memory Stick media), which is provided with copyright protection
- Memory Stick† media, which does not have the same copyright protection as MagicGate media

Some music files encoded with secure copyright protection may be stored on MG Memory Stick media but not on regular Memory Stick media. You can also use MagicGate media-compatible devices to record and playback music when they are connected to your notebook.

You can store mixed data on the Memory Stick media. For example, you can copy an image on to MG Memory Stick media that already contains music.

What is MagicGate media?

MagicGate media provides copyright protection that consists of authentication and encryption technology. Authentication technology ensures that protected content is only transferred between compliant devices and media. Protected content is recorded and transferred in an encrypted format to prevent unauthorized duplication or playback.

✍ MG Memory Stick media has the MG mark .

* MagicGate Memory Stick and are trademarks of Sony Corporation.

† Memory Stick and are trademarks of Sony Corporation.

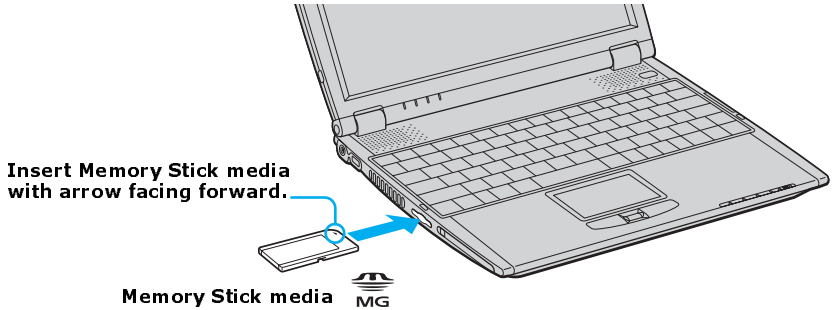
To insert a Memory Stick media

1 Insert the Memory Stick media with the arrow facing upward and toward the Memory Stick media slot.

✍ Inserting the media in the wrong direction may damage the connector pins.

2 Carefully slide the Memory Stick media into the slot until it clicks in place. The Memory Stick media indicator light on the right of the notebook briefly flashes.

Inserting Memory Stick Media



✍ At the default setting, Visual Flow™ application starts automatically when you insert a Memory Stick media. You can change this setting in VAIO Action Setup.

To view the contents of the Memory Stick media

1 Click Start on the Windows taskbar, and then My Computer. The My Computer window opens.

2 Double-click Sony Memory Stick under the Devices with Removable Storage box. The Sony Memory Stick window opens.

To remove a Memory Stick media

1 Make sure the Memory Stick media indicator light on the right of the notebook is off.

2 Push the Memory Stick media in toward the notebook.

3 When the Memory Stick media ejects, pull it out.

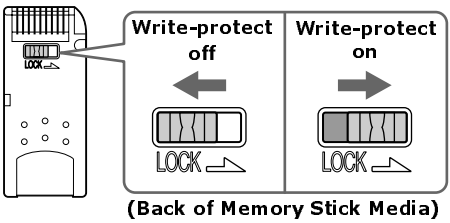
✍ Be careful when removing the Memory Stick media, as it may eject completely from the slot.

Write-protecting a Memory Stick media

Memory Stick media is designed with a write-protect tab to protect valuable data from accidental erasure or overwriting. Move the tab to the right or left to set or release write-protection.

Write-protect off	Data can be saved on the Memory Stick media.
Write-protect on	Data can be read from but not saved on the Memory Stick media.

Using the Write-protect Tab



Formatting a Memory Stick media

Memory Stick media is formatted for immediate use when you purchase it; however, if you need to reformat a Memory Stick media, follow the procedure below.

> ⚠ **Reformatting erases all current data that is stored on a Memory Stick media. Before you reformat, confirm that the media does not contain files you want to keep.**

To reformat a Memory Stick media:

1. Insert the Memory Stick media into the Memory Stick media slot. See "To insert a Memory Stick media" for more information.
2. Click Start in the Windows taskbar, and click My Computer.
3. Under Devices with Removable Storage, right-click Sony Memory Stick - MG, and select Format. The Format Sony Memory Stick - MG dialog box appears.
4. Select the appropriate options, and click Start.

Notes on Memory Stick media

- When the write-protect tab of the Memory Stick media is set to LOCK, data cannot be recorded or erased.
- Before using Memory Stick media, back up important data.
- Wait a minimum of 10 seconds after the Memory Stick media finishes reading or writing data before removing the media.
- If the media is removed prematurely, a blue screen with an error message appears, prompting you to continue or exit. Reinsert the media into the slot and press the Enter key to continue. This allows the media to finish reading or writing data.
- You can enjoy video clips that you have recorded with Memory Stick media-compatible video camera recorders.
- The media slot accommodates one Memory Stick media at a time.
- You may copy images from a digital video camera using Memory Stick media.

- Only use MG Memory Stick media with copyright protected data such as music.
- Copyright protected music cannot be checked-out to any Memory Stick media other than MG Memory Stick media.
- Recorded music is limited to private use only. Using recorded music for any other purpose requires permission of the copyright holders.
- Sony is not responsible for music files that cannot be recorded from a CD or downloaded from other sources.
- Formatting Memory Stick media erases all data (including music data) previously saved to it. Before you format Memory Stick media, confirm that the media does not contain files you want to keep.
- Do not use the media in locations that are subject to static electricity or electrical noise.
- Do not touch the media connector with your finger or metallic objects.
- Do not attach labels other than the supplied label to a media.
- Do not bend, drop, or apply strong shock to the media.
- Do not disassemble or modify the media.
- Do not allow the media to get wet.
- Do not use or store the media in a location that is subject to:
  - Extremely high temperatures, such as in a car parked in the sun
  - Direct sunlight
  - High humidity or places with corrosive substances
- To prolong the life of the media, use the supplied storage case. See the instructions that came with your media for more information on its use.

Using Power Saving Modes

When you use a battery as the source of power for your notebook, you can use the power management settings to conserve battery life. In addition to the normal operating mode, which allows you to turn off specific devices, your notebook has two distinct power saving modes: Standby and Hibernate. When using battery power, be aware that the notebook automatically enters Hibernate mode when the remaining battery charge drops below 5 percent, regardless of the power management setting you select.

✍ If the battery level falls below 10 percent, you should either attach the AC adapter to recharge the battery or turn off your notebook and insert a fully charged battery.

Normal mode

Normal mode is the normal state of your notebook when it is in use. The power indicator displays green when your notebook is in this mode. To save power, you can turn off a specific device such as the LCD or the hard disk drive.

Standby mode

In Standby mode the notebook saves the current state of the system in RAM and switches off power to the CPU. The amber power indicator flashes in this mode.

To activate Standby mode

1 Press the key combination Fn + Esc.

2 Press any key to return to normal mode.

Hibernate mode

In the Hibernate mode, the state of the system is saved on the hard drive and power is turned off. The power indicator is off in this mode.

To activate Hibernate mode

1 Press the key combination Fn + F12, or press the power button and release it immediately. The "Save to Disk Manager" window appears and the notebook enters Hibernate mode.

✍ Do not move the notebook until its power indicator turns off.

Pressing the power button and releasing it immediately caused prior notebook systems to enter Standby mode.

2 Press the power button to return to normal mode.

Notes on power saving modes

- When returning from Hibernate mode, the system status stored on the hard disk is erased and the notebook starts normally if you press the power button and hold it for more than four (4) seconds.
- Standby uses more power than Hibernate.
- Standby requires less time than Hibernate to return to normal mode.

Connecting a Phone Line

You need to connect a phone line to use online services and the Internet.

✍ In order to register your Sony VAIO® notebook, register your software online, and use Sony Customer Support, you must connect the notebook to a phone line.

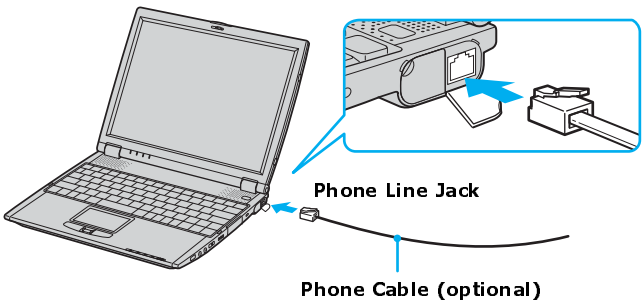
1 Gently peel back the rubber phone jack cover. Pulling the phone jack cover too hard, or too far, could damage it.

✍ Do not plug the phone cable into the Ethernet port located to the left of the phone jack as this may damage your notebook.

2 Plug one end of the phone cable into the phone jack, under the phone jack cover. Make sure you insert the phone cable from the rear of the notebook and that the modular jack clicks into place.

3 Plug the other end into the wall jack.

Plugging Phone Cable into Phone Jack

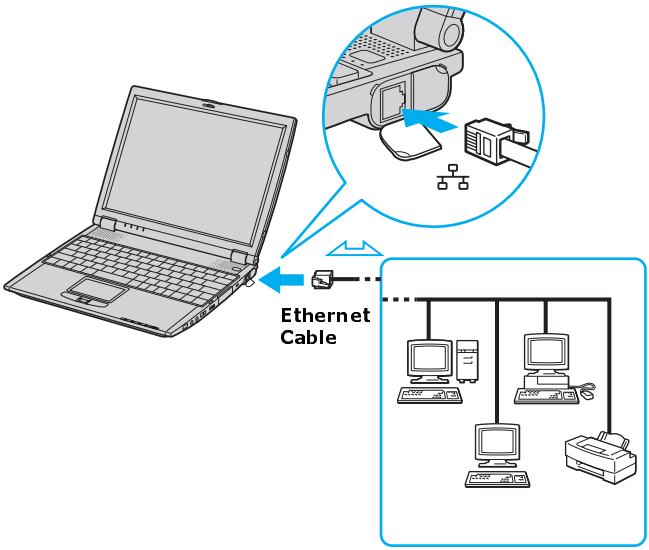


✍ Your notebook does not work with party lines, cannot be connected to a coin-operated telephone, and may not work with multiple phone lines or a private branch exchange (PBX). Some of these connections might result in excess electrical current and could cause a malfunction in the internal modem.

Connecting to a LAN

You can connect your notebook to 10BASE-T and 100BASE-TX-type Local Area Networks (LANs). For the detailed settings and devices needed to connect to the network, please ask your network administrator.

Connecting to LAN



Warning: Only connect 10BASE-T and 100BASE-TX cables to the Ethernet port. Do not connect any other type of network cable or any telephone line. Connecting cables other than those listed above may result in an electric current overload and could cause a malfunction, excessive heat, or fire in the port. To connect the unit to the network, contact your network administrator.

Setting up your Ethernet connection

To connect to a network

1 Click Start on the Windows® taskbar, and select My Computer.

2 In the Other Places box on the left, click My Network Places.

3 In the Network Tasks box, click Add a network place or click Set up a home or small office network, depending on your configuration. Depending on your choice, either the Add Network Place Wizard or Network Setup Wizard window appears.

4 Follow the on-screen instructions.

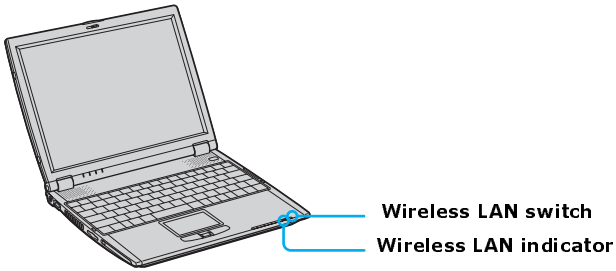
Connecting to a Wireless LAN

Your computer is equipped with a built-in mini PCI card that allows for wireless connections. With Sony's Wireless Local Area Network (LAN) functionality, all compatible digital devices can communicate freely without cable connections. A Wireless LAN is a network in which a mobile user can connect to a LAN through a wireless (radio) connection. You can opt to purchase a Wireless LAN Access Point to set up a LAN.

Turning On Wireless LAN

To enable Wireless LAN functionality, open the notebook and move the Wireless LAN switch on the right to ON. The Wireless LAN indicator to the left of the switch lights up.

Connecting to a wireless LAN



The Wireless LAN Access Point

The Wireless LAN Access Point, which is also called the Access Point, is designed for building a Wireless LAN environment. If you purchase an Access Point, you can easily build a wireless LAN environment by plugging the Access Point into an AC power outlet and using the provided software with compatible devices. Because a wireless LAN configuration requires no wiring, you can operate multiple computers more freely than ever before.

You can also connect an Access Point to a telephone line, Integrated Services Digital Network (ISDN) router, cable modem, or Digital Subscriber Line (DSL) modem to share access to the Internet among multiple computers.

✍ For information on available Sony products, go to: http://www.sonystyle.com/wirelesslan.

Communicating with Access Point (infrastructure)

An infrastructure network is one that extends an existing wired local network to wireless devices by providing an Access Point. The Access Point bridges the wireless and wired LAN and acts as a central controller for the Wireless LAN. The Access Point coordinates transmission and reception from multiple wireless devices within a specific range.

To communicate with an Access Point

1. Open the notebook and move the Wireless LAN switch on the right to ON. The Wireless LAN indicator to the left of the switch lights up.
2. Click Start on the Windows taskbar, and then Control Panel.
3. Click Network and Internet Connections, and then Network Connections.

4 Double-click the Wireless Network Connection icon. The Connect to Wireless Network dialog box opens.

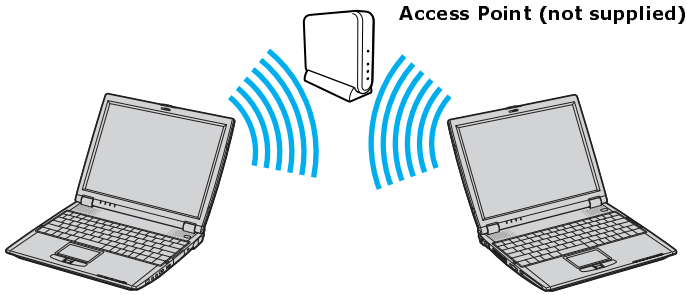
Connecting to a wireless LAN

Connect to Wireless Network
The following network(s) are available. To access a network, select it from the list, and then click Connect.
Available networks:
This network requires the use of a network key (WEP). To access this network, type the key, and then click Connect.
Network key:
If you are having difficulty connecting to a network, click Advanced.
Advanced...
Connect
Cancel

5 Select a network from the Available Networks list box.

6 Click Connect.

Communicating via Wireless LAN Access Point



Communicating without Access Point (ad-hoc)

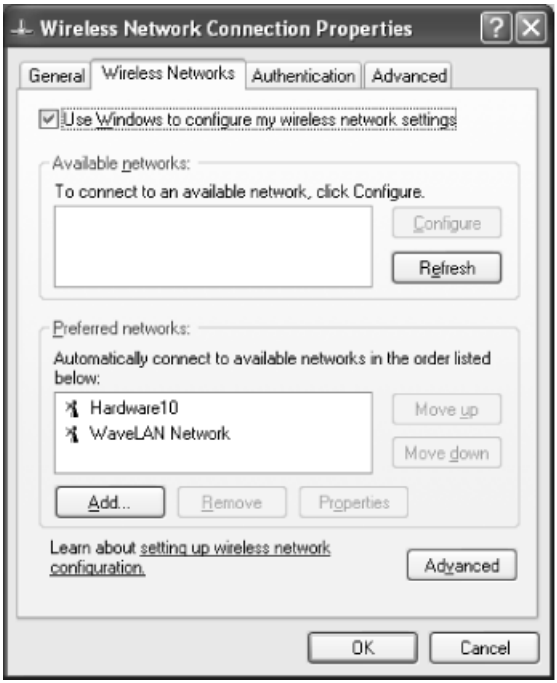
An ad-hoc network is one in which a local network is created only by the wireless devices themselves, with no other central controller or Access Point. Each device communicates directly with other devices in the network. You can set up an ad-hoc network easily at home.

To communicate without an Access Point:

1. Open the notebook and move the Wireless LAN switch on the right to ON. The Wireless LAN indicator to the left of the switch lights up.
2. Click Start on the Windows taskbar, and then Control Panel.
3. Click Network and Internet Connections, and then Network Connections.
4. Right-click the Wireless Network Connection icon and select Properties.
5. Select the Wireless Networks tab.

6 Click Add. The Wireless Network Properties dialog box appears.

Setting Wireless Network Connection Properties



7 Type a six-digit name in the Network name (SSID) box.

8 Click the Data encryption (WEP enabled) check box to select it.

9 Click the Network Authentication (Shared mode) check box to select it.

10 Click the "The key is provided for me automatically" check box to deselect it. Some information boxes become visible.

11 Type a five-digit name in the Network key box.

12 Click OK. Your new Network name appears in the Preferred networks window.

13 Click Advanced. The Advanced dialog box opens.

14 Select the Computer-to-computer (ad hoc) networks only option.

15 Click Close.

16 Click OK.

Turning Off Wireless LAN

Move the Wireless LAN switch on the right to the OFF position. The Wireless LAN indicator to the left of the switch shuts off.

> ⚠ **Turning off the Wireless LAN functionality while accessing remote documents, files, or resources may result in data loss.**

Notes on using Wireless LAN

- Sony Wireless LAN devices support the IEEE 802.11b standard. Devices connecting to a Wireless LAN using the IEEE 802.11a standard cannot connect to devices using the IEEE 802.11b standard.
- Wireless LAN communication occurs on divided frequency bands known as channels. Third-party Wireless LAN Access Point channels may be preset to different channels from Sony devices.
- If using a Wireless LAN Access Point, refer to connectivity information contained in those instructions.

Connecting Peripheral Devices

You can add functionality to your notebook by connecting it to a variety of peripherals, as discussed in the following sections:

- Connecting the Docking Station
- Using a Floppy Disk Drive
- Using an Optical Disc Drive
- Connecting a Parallel Port Printer
- Connecting a USB Printer
- Connecting an External Display
- Connecting a USB Device
- Connecting an i.LINK Device
- Connecting VAIO Computers
- Connecting External Speakers
- Connecting an External Microphone
- Expanding Your Notebook Capabilities

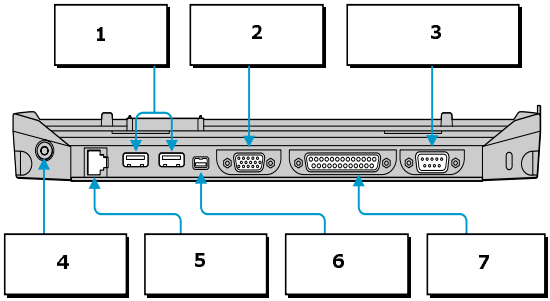
Connecting the Docking Station

Your notebook may come with a PCGA-DSD5 or PCGA-DSM5 docking station, depending on the model you purchased. Optional docking stations are also available. Both Sony docking stations provide you with the following:

- A floppy disk drive.
- An optical drive.

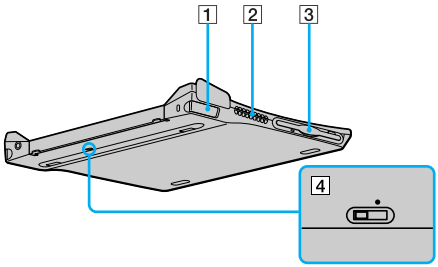
❑ A back panel that enables you to connect additional peripherals to your notebook, as shown below.

Back Panel



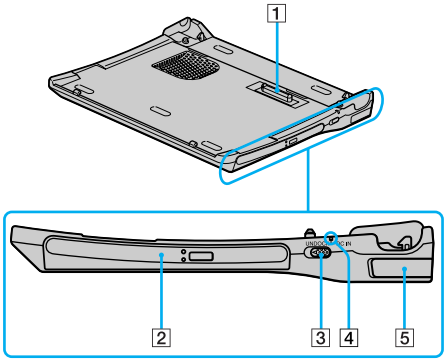
1		USB ports	**5**		Ethernet/Network port (10BASE-T/100BASE-TX)
2		Monitor port	**6**		i.LINK®* (IEEE 1394) S400 port
3		Serial port	**7**		Printer port
4		DC In port			

Left



1	Left lever	**3**	Floppy disk drive
2	Air vent	**4**	i.LINK network switch

Right



1	Docking station connector	**4**	DC In indicator
2	Optical drive	**5**	Right lever
3	UNDOCK switch		

Connecting the notebook to the docking station

You may connect your notebook to the docking station as long as it is not in power saving mode, i.e., Standby or Hibernate. Connecting the notebook while it is in power saving mode may result in data loss or a computer malfunction. Note the following before connecting your notebook to the docking station:

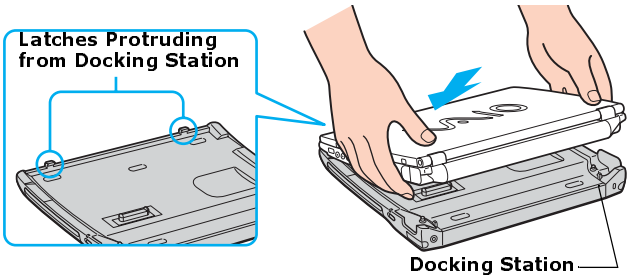
- ❑ Disconnect the VGA, USB, AC, and Ethernet devices from your notebook. Leaving these devices connected while you connect the docking station could damage them.
- ❑ Ensure that the battery is installed. If you install a charged battery, you can connect the docking station while the notebook is on.

To connect your notebook to the docking station

1 Plug one end of the AC adapter cable into the DC In port of the docking station and the other end into an AC outlet. The LED of the DC In port switches on.

2 Holding the notebook with the front side facing you, insert the two holes on the front of the notebook into the two corresponding latches protruding from the front side of the docking station.

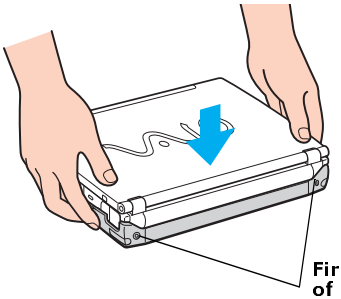
Latching the Notebook to the Docking Station



3 Firmly press down the two rear corners of the notebook until it clicks into place and is securely fastened to the docking station.

> ⚠ **Be careful not to press the top of the notebook too strongly. The LCD display may become damaged.**

Securing the Notebook to the Docking Station



Firmly press down the two rear corners of the notebook until it clicks into place.

Disconnecting the notebook from the docking station

You may disconnect the notebook from the docking station when the notebook is off or on; however, do not disconnect the notebook from the docking station while the docking indicator is on, while the notebook is in Standby or Hibernate mode, or while battery power is low. If you do attempt to disconnect the docking station in any of these three states, you may lose data or the notebook may malfunction.

✍ When the battery is low, turn off the notebook before you disconnect the docking station.

Follow one of the procedures below to disconnect the docking station when the notebook is off or on.

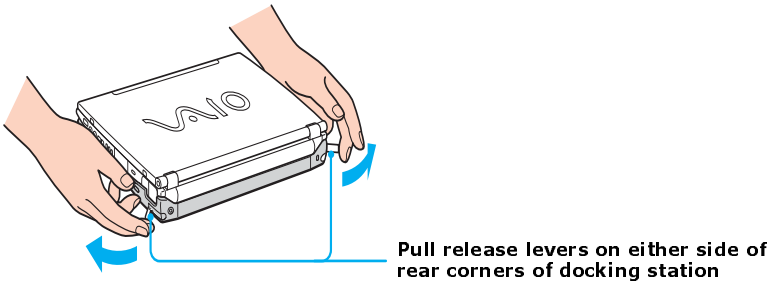
Disconnecting the docking station when the notebook is off

1 Disconnect all peripheral devices (i.e., i.LINK® devices) from the notebook and the docking station.

2 Remove all objects placed on top of the notebook.

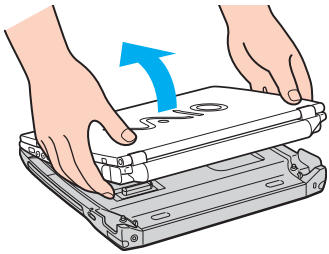
3 Pull out the two release levers on either side of the rear corners of the docking station, to release the notebook from the docking station.

Releasing the Notebook from the Docking Station



4 Remove the notebook from the docking station, while moving the notebook slightly back to disengage it from the two front latches of the docking station.

Removing the Notebook from the Docking Station



Disconnecting the docking station when the notebook is on

You can use the Start menu in the Windows® taskbar or the UNDOCK switch on the docking station to disconnect your notebook from the docking station while the notebook is on.

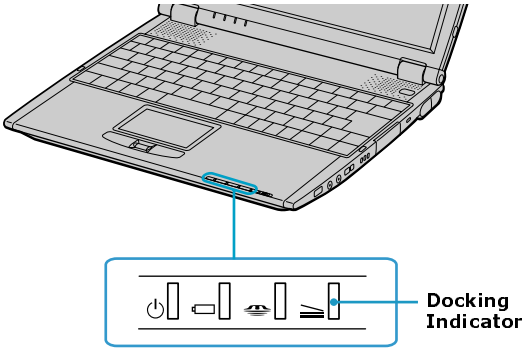
If you switch user accounts using Fast User Switching, the UNDOCK switch function on the docking station will be interrupted. Instead, follow the instructions to disconnect the docking station from the Start menu.

Disconnecting the docking station from the Start menu

1. Click Start in the Windows® taskbar.
2. Select Undock Computer. The Undock Complete pop-up window appears.
3. Release and remove your notebook. See "Disconnecting the docking station when the notebook is off" for instructions.

Wait for the docking indicator to switch off before undocking the notebook.

Docking Indicator

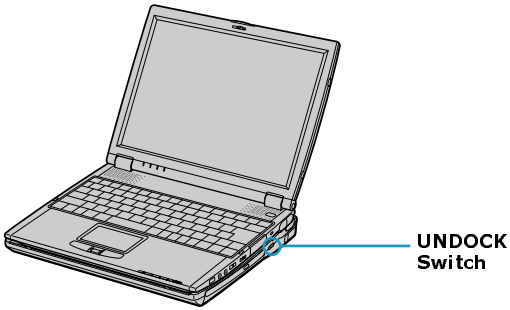


Disconnecting the docking station, using the UNDOCK switch

1 Slide the UNDOCK switch on the right side of your notebook toward the front of the notebook. The Undock Complete pop-up window appears.

2 Release and remove your notebook. See “Disconnecting the docking station when the notebook is off” for instructions.

UNDOCK switch



Using a Floppy Disk Drive

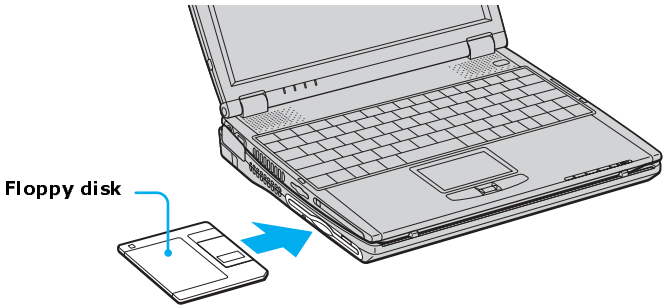
If your notebook came with a docking station, you may use the built-in floppy disk drive. However, if your notebook did not come with a docking station or you chose not to utilize the docking station drive, you may connect an optional PCGA-UFD5 floppy disk drive to one of the two USB ports, identified by the ⚲ symbol, on your notebook.

> ⚠ **Do not use an optional PCGA-UFD5 floppy disk drive while your notebook is connected to the docking station.**

To insert a floppy disk

1. Hold the floppy disk with the label side facing up.
2. Gently push the floppy disk into the drive until it clicks into place.

Inserting Floppy Disk

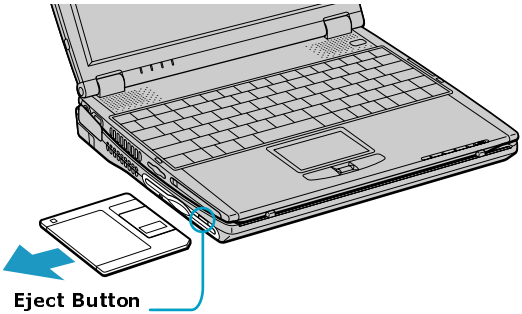


To remove a floppy disk

1 Make sure the LED indicator light on the floppy disk drive is off.

2 Press the Eject button.

Removing Floppy Disk



✍ Do not push the Eject button when the LED indicator is turned on; otherwise, you may lose data.

Notes on handling floppy disks

- ❑ Do not open the shutter manually and touch the surface of the floppy disk.
- ❑ Keep floppy disks away from magnets.
- ❑ Keep floppy disks away from direct sunlight and other heat sources.

Using an Optical Disc Drive

You may use the PCGA-DSM5 CD-RW/DVD Docking Station or the PCGA-DSD5 DVD Docking Station if your notebook came with a docking station. Both Sony docking stations have a built-in optical drive. If your notebook did not come with a docking station or you chose not to utilize the docking station drive, you may connect an optional optical drive (such as PCGA-CD51/A) to the PCMCIA PC Card slot.

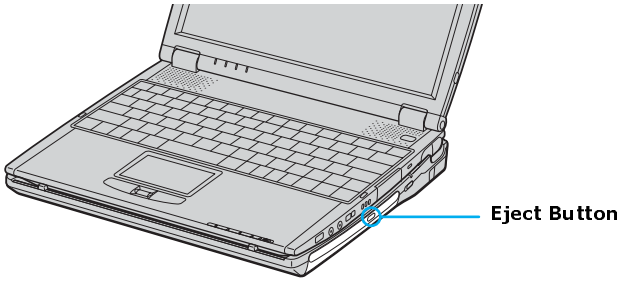
> ⚠ **Do not use an optional PC Card optical drive while your notebook is connected to the docking station.**

To insert a disc

When the notebook is in Standby or Hibernate mode, you cannot insert a disc because the disc tray will not open. See “Controlling Power Management” for more information.

1 Press the Eject button to open the optical drive. The disc tray slides out.

Ejecting the tray

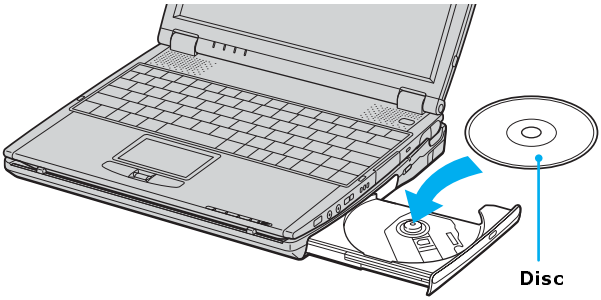


2 Place the disc on the tray with the label side facing up. For DVDs that can be played on both sides, the side of the disc facing up is the side that plays.

3 Push the disc onto the hub until the disc clicks into place.

> ⚠ **If the disc is not secured, it could damage the optical drive and you may not be able to open the tray.**

Inserting an optical disc



4 Close the tray by pushing it gently. The LED indicator on the drive flashes while your notebook reads data from the disc.

To remove a disc

When the notebook is in Standby or Hibernate mode, you cannot remove a disc because the disc tray will not open. See “Controlling Power Management” for more information.

1 After you finish using a disc, wait until the LED indicator turns off.

2 Press the Eject button to remove the disc.

3 If the disc does not come out when you press the Eject button, turn off the notebook and insert a thin, straight object (such as a paper clip) into the manual eject hole.

To play a DVD

To play a DVD, you may use the optical disc drive and the preinstalled WinDVD® software. For more information on WinDVD, see the Help menu in the WinDVD application.

✍ Before you use the optical disc drive to play a DVD, close any open applications.

Your optical drive can read most DVD-R media. When you are ready to play a DVD, read the suggestions below to maximize your video viewing experience.

- When using an optional optical drive or an optional PC Card drive to play a DVD, set the power management profile to DVD. You can also set the power management profile to Automatic Profile Selection if the display is not clear when using other profiles.

✍ Automatic Profile Selection sets the power management profile to DVD whenever a DVD is inserted into the drive. See "Controlling Power Management" for more information.

- When playing a DVD with an optional PC Card drive, you may use battery power; however, connect the notebook to AC power when using the docking station to play a DVD.
- Some DVD videos may allow limited operations or functions, or present sound noise or dropped frames.

⚠ **Some discs recorded at 20 or 24 bits may produce noise while playing. If you have audio devices connected, this may damage your hearing and the speakers. Reduce the volume before playing a DVD.**

Do not switch between LCD and external display once a DVD is playing. This may cause a malfunction, and you may need to restart the DVD software.

Do not switch the power saving modes while you are playing the DVD.

Do not install the software that comes with PCGA-DVD51/A drive.

To play an audio CD

1. Insert the CD into the optical disc tray. The Audio CD window opens.
2. Select either Play Audio CD using Windows Media Player or Play Audio CD using SonicStage.

3 Click OK.

To write data to a CD-R or CD-RW disc

You can use Sony SonicStage and Microsoft® Windows® XP to write data to a CD-R or CD-RW disc. To create a CD-R disc that is readable in a CD-ROM drive, make sure you finish the writing process before ejecting it. For more information, see the instructions included with Windows® XP.

- For optimal writing speed, deactivate the screen saver and exit anti-virus software before writing data to a disc.
- For best results, use CD-Rs that are compatible with 8x speed.

> ⚠ **Do not use the Eject PC option in Windows® or press the UNDOCK switch on the docking station while writing data to a CD-R or CD-RW. Doing so may severely damage your notebook.**
>
> **Do not put your notebook into power saving mode while writing data to a CD-R or CD-RW disc.**
>
> **Do not strike or shake the notebook while writing data to a disc.**
>
> **Memory-resident disc utilities, such as the screen saver and virus checker, may cause unstable operation or data loss. Deactivate these utilities (if they are active) before writing data to a disc.**
>
> **Always use the AC adapter as the power source for your notebook when you are writing data to a CD-R or CD-RW. Using battery power may result in data transfer failure.**

Notes on CD and DVD discs

- Do not drop or bend the disc.
- Do not touch the surface of the disc. Fingerprints and dust on the surface of a disc may cause reading errors.
- For normal cleaning, hold the disc by its edge and use a soft cloth to wipe the surface from the center out.
- If the disc is badly soiled, moisten a soft cloth with water, wring it out well, and use it to wipe the surface of the disc from the center out. Wipe off any remaining moisture with a dry, soft cloth.
- Do not use solvents such as benzine, thinner, commercially available cleaners or anti-static spray, as they may damage to the disc.

Connecting a Parallel Port Printer

If your notebook came with a docking station, you may connect a Windows® compatible parallel port printer to the docking station. However, if your notebook did not come with a docking station, see "Connecting a USB Printer" for information on connecting a printer to your notebook.

✍ Turn off the notebook before connecting peripherals. In normal use, you should turn on the peripherals before turning on your notebook.

To connect a parallel port printer

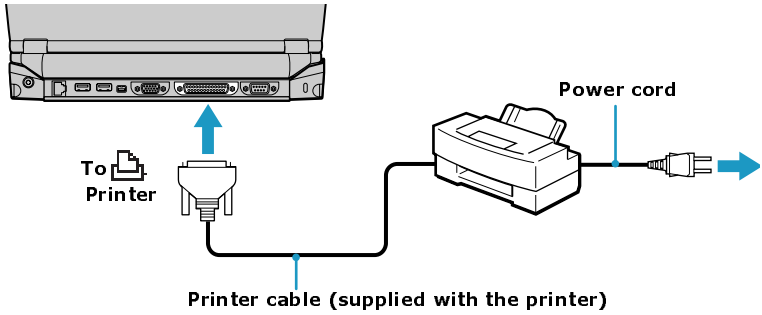
1 Locate the Printer port, identified by the symbol, on the docking station.

2 Plug the printer cable (may or may not be supplied by printer company) into the Printer port.

3 Make sure the Printer setting in the Sony Notebook Setup software is properly set. See "Displaying the Sony Notebook Setup Screen" for more information.

4 See the manual supplied with your printer for more information on its installation and use

Connecting a Printer to the Docking Station



✍ If your printer stops functioning after resuming from a power saving mode, see "Troubleshooting the Printer" for more information.

Connecting a USB Printer

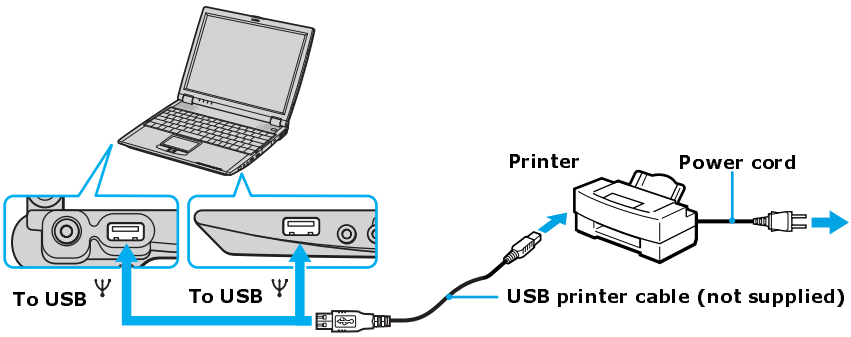
You may connect a Windows® compatible Universal Serial Bus (USB) printer to either of your notebook's two USB ports.

✍ To use a printer, first install the driver software that came with your printer.

To connect a USB printer

1. Locate the USB ports, identified by the ⚲ symbol, on your notebook and printer.
2. Plug the USB printer cable into one of the two USB ports.
3. Make sure the Printer setting in the Sony Notebook Setup software is properly set. See "Displaying the Sony Notebook Setup Screen" for more information.
4. See the manual supplied with your printer for more information on its installation and use.

Connecting a USB Printer



✍ If your printer stops functioning after resuming from a power saving mode, see "Troubleshooting the Printer" for more information.

Connecting an External Display

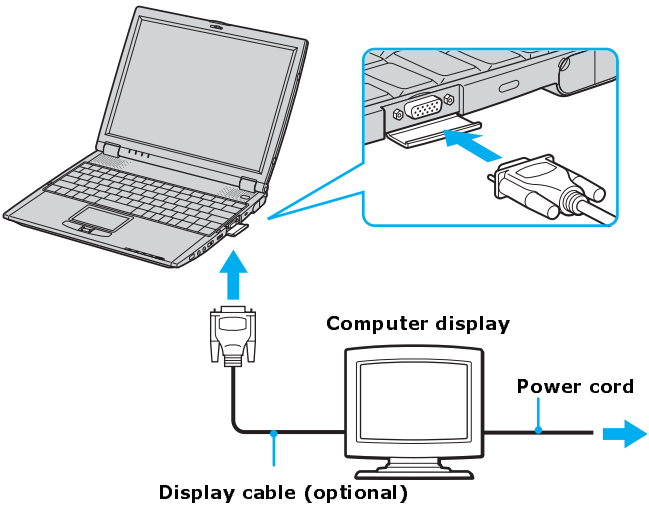
You can connect a computer display (such as a monitor or a projector) to your notebook or docking station.

✍ The docking station is supplied with selected models only.

To connect a monitor to your notebook

1. Make sure the external display is plugged into an AC outlet.
2. Open the monitor port panel on the right side of the notebook.
3. Plug the display cable (VGA connector) into the monitor port.
4. Restart your notebook.
5. Press the key combination Fn + F7 to change the display to monitor.
6. See the manual that came with your computer display for more information on its installation and use.

Connecting Monitor to the Notebook



✍ You cannot use the monitor port on your notebook when the docking station is connected to the notebook; however, you can use the monitor port on the docking station.

To connect an external display to your docking station

1 Make sure the external display is plugged into an AC outlet.

2 Open the rear panel of the docking station, and locate the monitor port.

3 Plug the display cable into the monitor port.

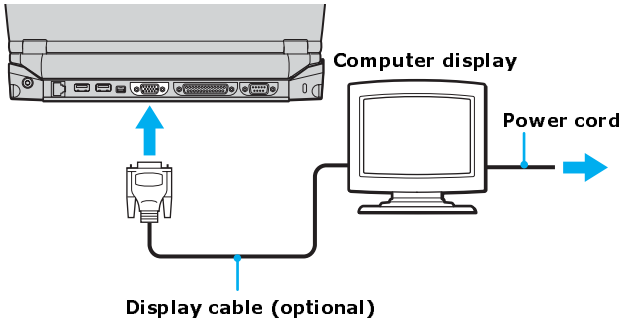
4 Make sure the cable is connected to the external display.

5 Restart your notebook.

6 Press the key combination Fn + F7 to change the display to monitor.

7 See the manual that came with your computer display for more information on its installation and use.

Connecting Monitor to the Docking Station



To connect a projector (such as a Sony LCD Projector) to your notebook:

1 Make sure the projector is plugged into an AC outlet.

2 Open the monitor port panel on the right side of the notebook.

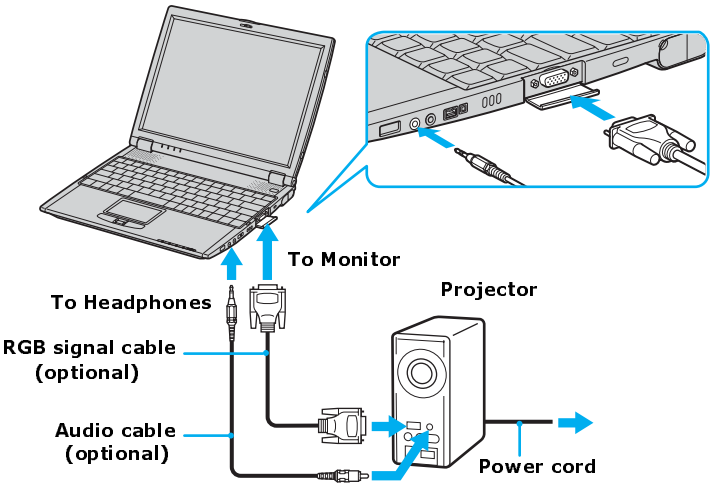
3 Plug the RGB signal cable into the monitor port, and make sure it is connected to the projector.

4 Plug the audio cable into the green Headphone jack on the right side of the notebook, and make sure it is connected to the projector.

5 Press the key combination Fn + F7 to change the display to projector.

6 See the manual that came with your projector for more information on installation and operation.

Connecting Projector to the Notebook



To connect a projector (such as a Sony LCD Projector) to your docking station

1 Make sure the projector is plugged into an AC outlet.

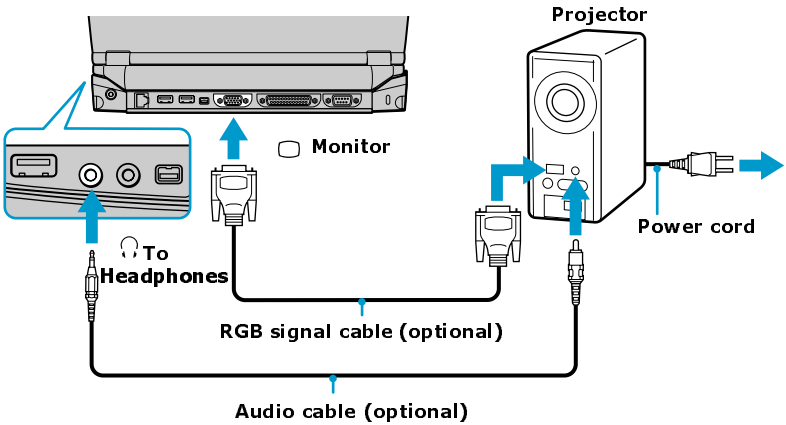
2 Open the rear panel of the docking station, and locate the monitor port.

3 Plug the RGB signal cable into the monitor port, and make sure it is connected to the projector.

4 Plug the audio cable into the green Headphone jack on the right side of the notebook, and make sure it is connected to the projector.

5 Plug the audio cable into the green Headphone jack on the right side of the notebook.

Connecting Projector to the Docking Station



6 See the manual that came with your projector for more information on installation and operation.

✍ You cannot use the Monitor port on your notebook when the docking station is connected to the notebook.

To select a display

When you connect an external display to the Monitor port, press the key combination Fn+F7 to toggle the output between the Liquid Crystal Display (LCD), the external monitor, or both devices. See “Selecting the Display Mode” for more information.

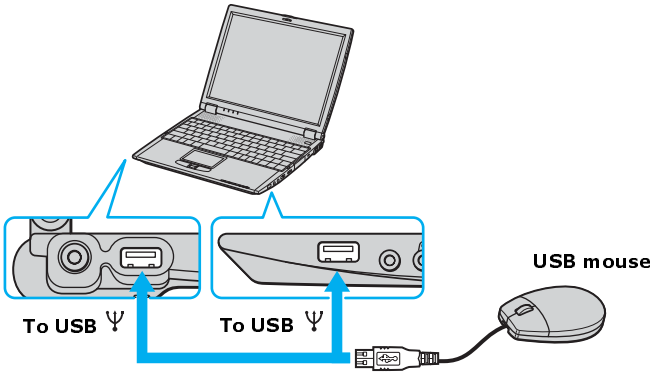
Connecting a USB Device

You can connect a variety of Universal Serial Bus (USB) devices such as an external mouse, keyboard, speaker, and microphone to your notebook.

To connect a USB device to your notebook

1. Locate a USB port, identified by the ψ symbol, on the notebook. There are two USB ports on the notebook, one on the right side and one on the left side.
2. Plug one end of the USB cable into a port and the other end into the USB device.

Connecting USB Device to the Notebook

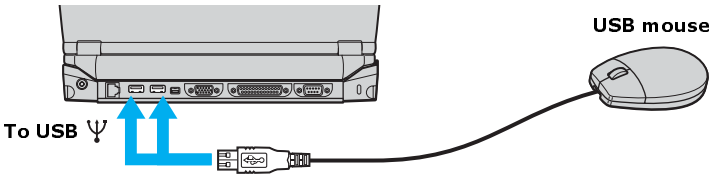


To connect a USB device to the docking station

1 Open the rear panel of the docking station, and locate the USB ports, identified by the symbol. There are two USB ports located on the back side of the docking station.

2 Plug one end of the USB cable into a port and the other end into the USB device.

Connecting USB Device to the Docking Station



You can use an optional Sony USB mouse, such as a PCGA-UMS1 series, with this notebook. Since the USB mouse software driver is preinstalled in the notebook, you simply plug the USB mouse into the USB port to use it. One USB port supports one USB device.

See the manual that came with your USB device for more information on its installation and use.

Connecting an i.LINK Device

Your VAIO notebook includes an i.LINK* ® (IEEE 1394) S400 port, which connects to a compatible i.LINK device such as a digital video camera recorder.

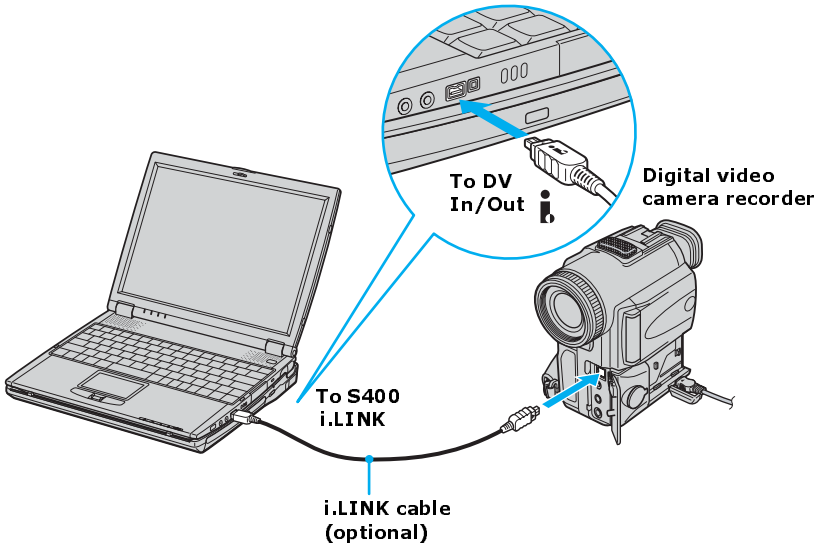
To connect a digital video camera recorder

Plug one end of an i.LINK cable (not supplied) into the S400 port on the right side of the notebook and the other end into the DV In/Out port on the digital video camera recorder. If your digital video camera recorder includes a Memory Stick® media slot, you can copy images from it to your notebook via a Memory

* i.LINK is a trademark of Sony used only to designate that a product contains an IEEE 1394 connection. The i.LINK connection may vary, depending on the software applications, operating system, and compatible i.LINK devices. All products with an i.LINK connection may not communicate with each other. Refer to the documentation that came with your compatible i.LINK device for information on operating conditions and proper connection. Before connecting compatible i.LINK PC peripherals to your system, such as CD-RW or hard disk drive, confirm their operating system compatibility and required operating conditions.

Stick media. Copy images to the Memory Stick media and insert the media into the Memory Stick media slot on your notebook. See "Using Memory Stick Media" for more information on using Memory Stick media.

Connecting Digital Video Camera Recorder



Notes on i.LINK devices

- The above figure displays connection to a Sony digital video camera; your digital video camera recorder may need to be connected differently.
- Only Sony digital video cameras and ports labeled "DV In/Out" or "i.LINK" are compatible i.LINK devices.
- See the manual that came with your digital video camera recorder for more information on installation and use.
- The i.LINK port does not supply power to external devices. If the external device requires power from the i.LINK port, you cannot use the device with your notebook.
- The VAIO notebook supports transfer rates up to 400 Mbps, however, the actual transfer rate is the lowest transfer rate of the external device.

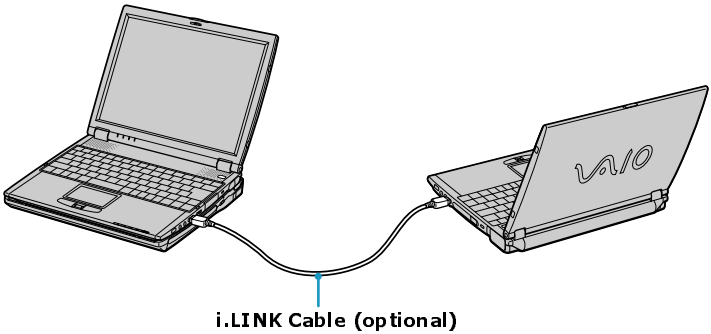
- The i.LINK features available may vary depending on the software applications you use. See the documentation that came with your software for more information.
- You can connect a digital video camera to the i.LINK port on your notebook or the i.LINK port on the optional port replicator. When a camera is connected to the i.LINK port on the notebook, you should not connect any other devices to the i.LINK port on the port replicator. When a camera is connected to the i.LINK port on the port replicator, you should not connect any other devices to the i.LINK port on the notebook.
- i.LINK* cables compatible with your VAIO notebook include cables with the following part numbers: VMC-IL4415A (a 1.5-meter cable with a 4-pin connector at each end), VMC-IL4615A (a 1.5-meter cable with a 4-pin connector at one end and a 6-pin connector at the other). You can purchase these cables from your local retailer, through the Sony VAIO® Direct Web site (http://vaio.sonystyle.com) or by calling 1-888-315-7669 (toll free).

Connecting VAIO Computers

You may use an optional i.LINK®* cable to connect your VAIO® notebook to another VAIO computer that has the preinstalled Microsoft® Windows® operating system or the Sony Smart Connect software preinstalled. You may use an i.LINK cable (not supplied) to connect the two systems and then use one computer to edit, copy, or delete files on the other computer. You can also print from a printer that is attached to either computer.

To connect VAIO computers that do not have the latest Windows® operating system, Smart Connect software may be necessary. Consult the Sony Web site for support options (http://www.sony.com/pcsupport).

Connecting with an i.LINK cable



✍ When you connect two VAIO computers, you must assign each computer a unique name. The computers can be identified by this unique name when the two computers are networked together.

* i.LINK is a trademark of Sony used only to designate that a product contains an IEEE 1394 connection. The i.LINK connection may vary, depending on the software applications, operating system, and compatible i.LINK devices. All products with an i.LINK connection may not communicate with each other. Refer to the documentation that came with your compatible i.LINK device for information on operating conditions and proper connection. Before connecting compatible i.LINK PC peripherals to your system, such as CD-RW or hard disk drive, confirm their operating system compatibility and required operating conditions.

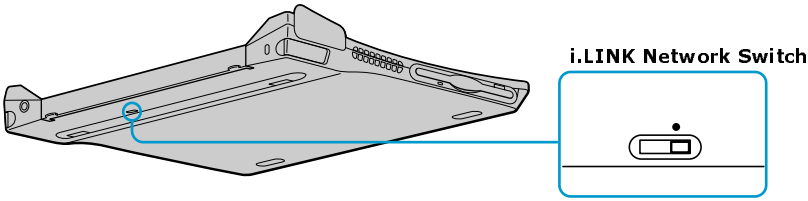
If your notebook is connected to the docking station

If you want to exchange data with another computer using the optional i.LINK cable and your notebook is connected to the docking station, perform the following:

1. Disconnect your notebook from the docking station as described in the "Disconnecting the notebook from the docking station" section.
2. Disconnect the AC adapter and all cables from the docking station.
3. Using a thin pen tip, set the i.LINK network switch on the bottom of the docking station to the side marked ●.

> ⚠ **Do not set the i.LINK network switch when the notebook is on. The notebook will malfunction.**

i.LINK Network Switch



4. Connect the docking station to your notebook as described in the "Connecting the notebook to the docking station" section.
5. Turn on the notebook, and use the i.LINK cable to connect your notebook to another computer.
6. After you have finished the "smart connect" session tasks, proceed as follows:
   - ❑ Disconnect your notebook from the docking station.
   - ❑ Disconnect the i.LINK cable and all other cables from the docking station.

- Set the i.LINK network switch to the unmarked side.

Connecting External Speakers

You can connect external speakers to your notebook to enhance the sound quality of your notebook. See the manual that came with your speakers for more information on its installation and use.

> ⚠ **Do not place floppy disks on the speakers. The magnetic field of the speakers may damage the data on the floppy disks.**

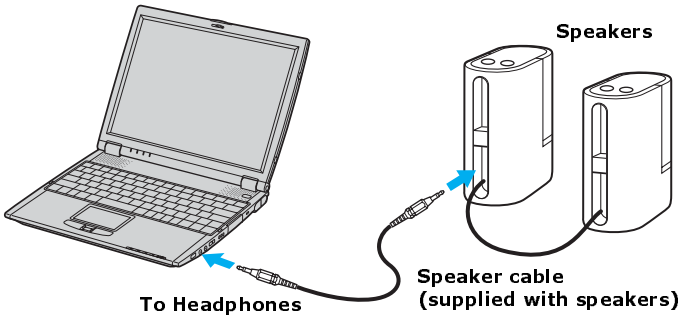
Before connecting your external speakers

1. Verify that your speakers are designed for computer use.
2. Turn down the volume of the speakers before you turn them on.

To connect your external speakers

1. Locate the green Headphone jack on the right side of your notebook.
2. Plug the speaker cable into the Headphone jack.

Connecting Speakers to the Headphone Jack



Connecting an External Microphone

You can use an external microphone to enhance the quality of the sound input. See the manual that came with your microphone for more information on its installation and use.

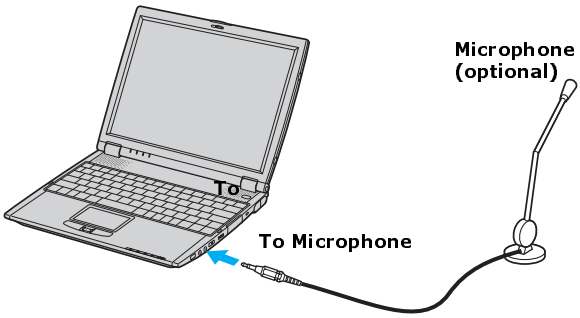
✍ Verify that your microphone is designed for computer use. The microphone should be compliant with the plug-in power microphone.

To connect an external microphone

1 Locate the red Microphone jack on the right side of your notebook.

2 Plug the microphone cable into the Microphone jack.

Connecting Microphone to Microphone Jack



Expanding Your Notebook Capabilities

The following peripheral devices can be connected to your notebook, to expand the capabilities of your notebook and enhance its versatility to meet your various business or personal needs:

- A Personal Digital Assistant (PDA)
- A Wireless LAN Access Point
- A Wireless LAN PC Card

Personal Digital Assistant

A handheld PDA is the quintessential personal planner and entertainment center that fits in your pocket. With a PDA, you can easily perform the following functions:

- Enter your schedule details in the calendar and view them by the day, week, or month, and even set an alarm to remind you of important events.
- Keep your contact names, addresses, phone numbers, and other details in the address book, and find them when you need them.
- Add tasks to the To Do List, prioritize them, and assign them due dates.
- Synchronize your data with the software on your notebook to back up your data.
- Track expenses when you are out of the office, then transfer the data to your notebook.
- Exchange data with your notebook.

Wireless LAN Access Point

The Wireless LAN Access Point is designed for building a wireless Local Area Network (LAN) environment. The Access Point comes with the Wireless LAN PC Card and required software. You can easily build a wireless LAN environment by plugging the Access Point into an AC power outlet, installing the Wireless LAN PC Card in your notebook, and using the provided software. Because a wireless LAN configuration requires no wiring, you can operate multiple computers more freely than ever before.

You can also connect your Access Point to a telephone line, Integrated Services Digital Network (ISDN) router, cable modem, or Digital Subscriber Line (xDSL) modem to share access to the Internet among multiple computers.

✍ For information on wireless LAN, go to http://www.sonystyle.com/wirelesslan.

Customizing Your VAIO Notebook

The following sections briefly describe how to change your notebook's default settings:

- Displaying the Sony Notebook Setup Screen
- Controlling Power Management
- Displaying Battery Information
- Selecting the Display Mode

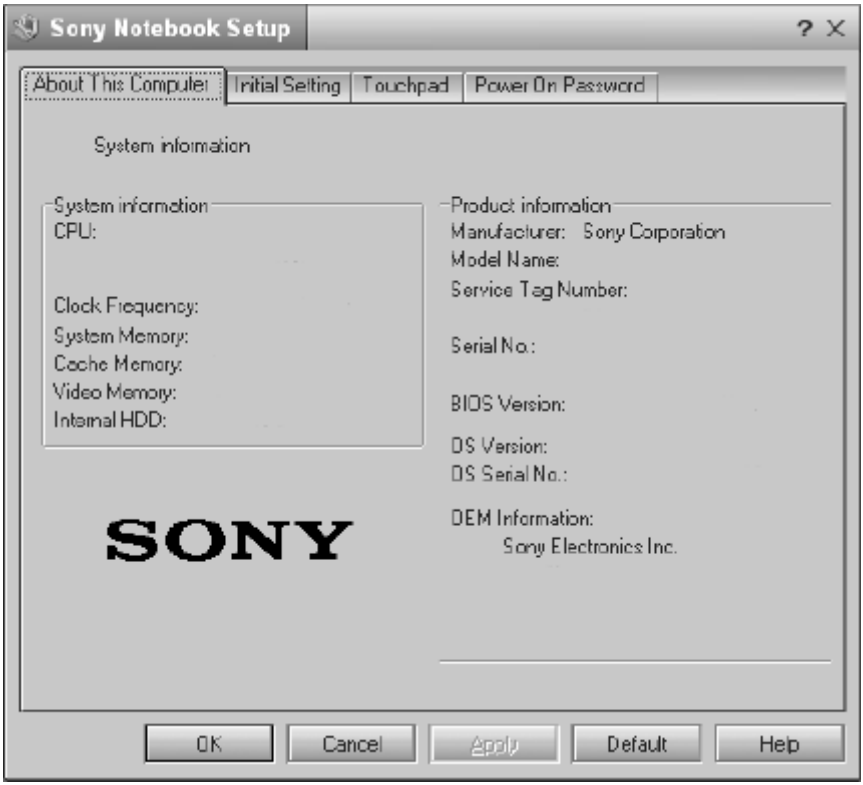
Displaying the Sony Notebook Setup Screen

To display the Sony Notebook Setup screen:

1 Click Start on the Windows® taskbar, and then Control Panel.

2 Click Performance and Maintenance, and then Sony Notebook Setup.

Sony Notebook Setup Screen



3 Select the tab for the item you want to change. See “Sony Notebook Setup tabs” for more information.

4 After you finish making your changes, click OK.

Sony Notebook Setup tabs

Tab	Description
About This Computer	Display system information, including memory capacity, serial number, and BIOS version.
Printer	Select printer port mode settings.
Initial Setting	Change the volume of the sounds that play while the operating system is loading. Select the order of drives and devices from which you want to load the operating system. You can specify the hard drive as well as other drives inserted into your notebook.
Touchpad	When you connect an optional mouse to the Serial port of your notebook, you can make your touchpad inactive. You can also customize the settings of your mouse using the mouse utility.
Power On Password	Set the password to secure your notebook.
Enable Ports	Enable or disable ports. Disabling ports releases resources to the system. To change the serial settings, click Advanced on the Basic/Advanced tab.
Basic/Advanced	Switch between Advanced mode (additional screens with advanced settings) and Basic mode of display.

✍ For more information about each option, click Help on the Sony Notebook Setup screen to display the Help file.

Controlling Power Management

The PowerPanel™ utility allows you to control the power settings of your notebook and provides key information about system activity and battery life. The following sections briefly describe how to conserve your notebook's battery power. You can also refer to PowerPanel help for more detailed information. To activate a profile or command, see "Displaying Battery Information" for more information.

Viewing the Power Management status icons

The Power Management status icons are displayed in the taskbar at the lower right side of your screen. Move the pointer over the icons to see the tool tip that displays information about the active profile. The CPU status icon indicates the performance level of the CPU. Double-clicking the CPU status icon also displays the PowerPanel battery information.

To change the Power Management profile

1. Right-click the battery icon on the taskbar, and then select Profiles.
2. Choose a new profile from the pop-up list. See "Power Management profiles" for a description of available options.

✍ When you use the battery pack to power your notebook, your system selects the Maximum Battery Life power management profile by default. If you select a different power management profile while using battery power, the new profile is selected automatically the next time you use the battery pack to power your notebook.

Refer to PowerPanel help for information on customizing the Power Management toolbar.

To customize Power Management settings

You can customize power management settings, such as the system timer and the brightness of the screen.

1. Right-click the CPU: Performance icon on the Windows taskbar.
2. Select Edit/Create Profiles from the menu.
3. In the left panel, click a profile in which you want to change the settings.

4 In the right panel, double-click an item in which you want to change the settings.

5 Select an option from the drop-down list.

6 Click the File menu, then click Save.

7 Click the File menu, then click Exit.

Power Management profiles

The PowerPanel™ utility provides several predefined power management profiles. Each profile consists of a group of power management settings that are designed to meet specific power management goals—ranging from maximum power management to no power management. You can change the settings for any of the predefined profiles (except for the Disable Power Management profile), or you can create your own profile to suit your portable computing needs. The predefined profiles are:

Icon	Description
	Maximum Performance Provides the best system performance while still conserving power.
	Maximum Battery Life Provides power saving features to give you maximum battery life and good performance. It slows the notebook and puts it into Standby mode after a specified time period.
	Disable Power Management Turns off all power management features such as Standby and Hibernate modes. You can not change the settings of this profile.
	AC Power The power management state when AC power is in use. Similar to the Power Management Off setting. Power Management automatically loads the AC profile unless you disable this feature.

Icon	Description
	Games Disables the display and the Hard Disk Standby timer.
	Presentation Keeps the display on at all times while it conserves power. This option is ideal for slide show presentations. You can establish settings for LCD (Video) Standby, Hard Disk Standby, and Standby to optimize power management for your system.
	Camera Optimizes performance and power requirements for camera usage.
	DVD Optimizes performance and power requirements for DVD usage.
	Word Processing Optimizes power management with longer timeouts on the hard disk and display screen. You can also establish settings for LCD (Video) Standby, Hard Disk Standby, and Standby to optimize power management for your system.
	Spreadsheet Optimizes performance and power requirements for spreadsheet applications.
	Communications Extends battery life by initiating a quick display timeout. The Internal modem remains powered. You can also establish settings for LCD (Video) Standby, Hard Disk Standby, and Standby to optimize power management for your system.
	Automatic Profile Selection Automatically switches to a profile suitable for active applications.

Power Management commands

PowerPanel™ also provides power management commands that you can use to activate specific power management functions and to control power for a specific device. You can use these commands to override a profile setting or initiate an immediate action.

Icon	Description
	Standby Puts the system into Standby mode, a power management state that saves the state of the system and peripheral devices in memory (RAM). Power consumption reduces to a minimum, and the system remains on. To return the system to the active state, press any key or the power button on your notebook.
	Hibernate Provides for the lowest level of power consumption. The system writes the state of the system and peripheral devices to the hard disk and turns off the system power. To return the system to the original state, use the power button to turn on power. The system saves the data in the Save to Disk Partition on the hard drive.

Conserving battery power

When using the notebook with a battery, the LCD display and the hard drive can be set to switch off automatically to conserve battery power.

See “Power Management profiles” for more information.

Displaying Battery Information

You can display detailed information for each of the batteries in your notebook. The following sections briefly describe how to display your notebook's general battery information. Refer to PowerPanel™ Help for more detailed information.

To activate the battery information toolbar

1 Right-click on the taskbar at the bottom of the screen.

2 Select Toolbars from the pop-up menu, then click Battery Information. The Battery Information toolbar appears on the taskbar.

You can also view the total capacity remaining in the battery by placing the pointer over the battery status icon in the task tray on the lower right side of the screen.

Battery Information Toolbar

- **Percentage indicator —** Displays the percentage of the remaining battery capacity.
- **Time indicator —** Displays estimated time (hours/minutes) remaining before the battery fully drains, also referred to as the time-to-empty.

Battery icon descriptions

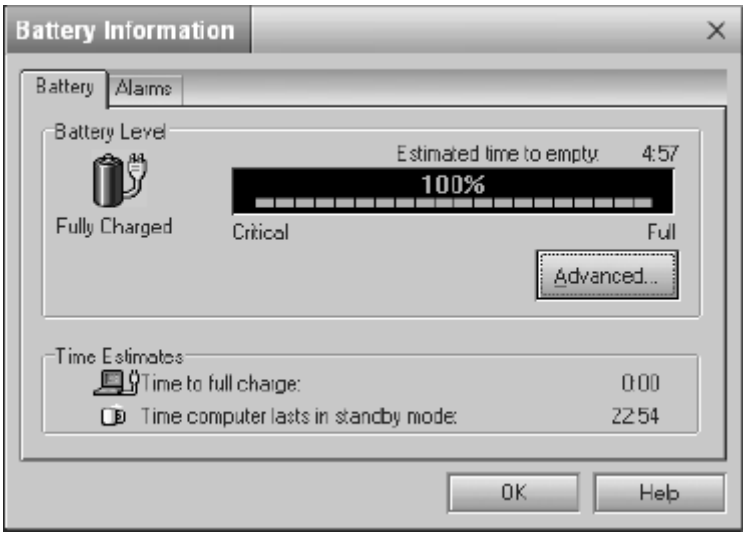
Battery Icon	Battery Status
	Charging

Battery Icon	Battery Status
	Fully charged
	Discharging
	No battery

Displaying detailed battery information

Double-click the battery icon on the task tray to display the Battery Information window. The screen appears displaying the Battery tab, which contains information such as the estimated time-to-empty and charging time.

Battery Information Window



To customize the Battery Information toolbar and alarm system

You can customize the Battery Information toolbar to suit your portable computing needs, including modifications to the alarm settings. Refer to PowerPanel™ Help for more information.

Selecting the Display Mode

This notebook uses the Intel® video controller, which enables you to select the desired display when the notebook is connected to an external monitor. When you connect an external display, you can switch the display mode between your notebook's LCD display and the external monitor.

To select the display mode

✍ See "Connecting an External Display" for more information.

1. Make sure the external display you are connecting to is turned on and the VGA connector is securely in place.
2. Restart your notebook
3. On your notebook, press the key combination Fn+F7 to switch the display mode. The image that was on your notebook's monitor should appear on the external display.

If the display mode does not switch, do the following:

1. Click Start, and then Control Panel.
2. Click Appearance and Themes, and then the Display icon. The Display Properties window opens.
3. Click the Settings tab, and then Advanced.
4. Click the Monitor tab. In the Monitor Type box, use the drop-down arrow to select the external monitor option.

✍ You may not be able to display the notebook LCD screen and an external display or projector at the same time, depending on the types of computer displays and projectors you are using.

Turn on the notebook after you turn on the peripheral devices.

To change the window design of Sony software

1. Click Start in the Windows taskbar, and then click Control Panel.
2. In the left See Also window, click Other Control Panel Options.

3 Double-click UI Design Selector.

4 Click << or >> and select the desired design.

5 Click Apply. The UI Design Selector window design changes. The window design for your Sony software will match the UI Design Selector window.

✍ This feature is available with UI Design Selector-compatible software only.

Adding Memory

In the future you may want to install memory modules to expand the functionality of your notebook. The amount of memory on your notebook will vary depending on the model you purchased. Expansion memory modules are available as options. For memory upgrades, use only unbuffered PC133 (CL2) SDRAM SO-DIMM (gold lead contacts). This section describes how to replace memory modules in your computer:

- ❑ Precautions and Procedures
- ❑ Removing a Memory Module
- ❑ Installing a Memory Module
- ❑ Viewing the Amount of Memory

Precautions and Procedures

The procedures described below assume familiarity with the general terminology associated with personal computers and with the safety practices and regulatory compliance required for using and modifying electronic equipment. Personal injury or equipment damage may result from failure to take these precautions.

> ⚠ **Sony recommends memory upgrades be performed by an authorized Sony Service Center. To find the nearest center or agent, see http://www.sony.com/pcsupport.**
>
> **Observe the proper safety precautions when installing memory modules in your notebook. See the bulleted list below. Use care when adding memory. Mistakes when installing or removing a memory module may cause a malfunction.**

- Disconnect the system from its power source and from any telecommunications links, networks, or modems before you open the system.
- Electrostatic discharge (ESD) can damage disk drives and other components. Perform the procedures described below only at an ESD workstation. If such a station is not available, do not work in a carpeted area, and do not handle materials that produce or hold static electricity (cellophane wrappers, for example). Ground yourself by maintaining contact with an unpainted metal portion of the chassis while performing the procedure.
- Do not open the memory module package until you are ready to install the module. The package protects the module from ESD.
- Use the special bag for preventing ESD or use aluminum foil when you store the memory module.

Typical expansion memory configuration

Total System Memory (MB)	On board (MB)	Slot (MB)
128	128	0
192	128	64
256	128	128
384*	128	256

* The 384 MB memory configuration may require the removal and replacement of original factory-installed memory module.

Removing a Memory Module

1. Turn off your notebook and disconnect all peripheral devices, such as your printer.
2. Unplug the notebook and remove the battery packs.
3. After the notebook has cooled, loosen and remove the two screws with the ⇐• mark located on the bottom of your notebook. Use an appropriate screwdriver.
4. Slide the LCD lock lever and lift the cover. Slide the keyboard toward the LCD display, then lift it away slightly.
5. Lift the keyboard from the LCD display side, then gently turn it over on the touchpad space. Be careful not to detach the cable when lifting the keyboard.
6. Touch a metal object (such as the connector panel on the back of your notebook) to discharge any static electricity.
7. Slide the memory module out of the slot.
8. Gently replace the keyboard, then press it into your notebook. Be careful not to detach the cable when lifting the keyboard.
9. Close the notebook cover, then tighten the screws on the bottom of the computer.

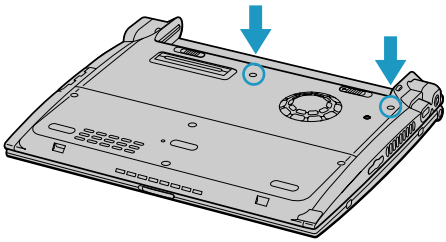
Installing a Memory Module

1 Turn off your notebook and disconnect all peripheral devices, such as your printer.

2 Unplug the notebook and remove the battery packs.

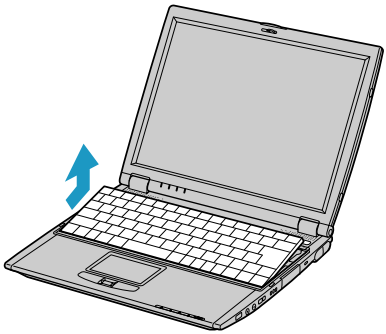
3 After the notebook has cooled, loosed and remove the two screws with the ⇐• mark located on the bottom of your notebook. Use an appropriate screwdriver.

Screws on Bottom of Notebook



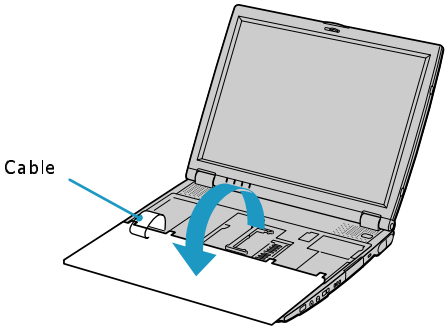
4 Slide the LCD lock lever and lift the cover. Slide the keyboard toward the LCD display, then lift it away slightly.

Lifting the Keyboard



5 Lift the keyboard from the LCD display side, then gently turn it over on the touchpad space. Be careful not to detach the cable when lifting the keyboard.

Turning the Keyboard



6 You must remove the existing memory module before you can install a new module. See “Removing a Memory Module” for instructions.

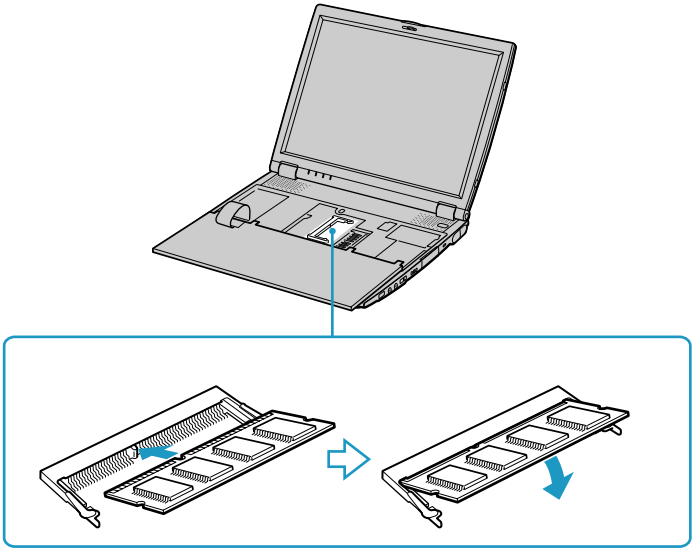
7 Touch a metal object (such as the connector panel on the back of your notebook) to discharge any static electricity.

8 Remove the new memory module from its packaging.

9 Slide the memory module into the empty slot.

10 Press the module into place until it clicks.

Installing the Memory Module



11 Gently replace the keyboard, then press it into your notebook. Be careful not to detach the cable when lifting the keyboard.

12 Close the notebook cover, then tighten the screws on the bottom of the computer.

Viewing the Amount of Memory

1. Restart the notebook.
2. Click Start on the Windows® taskbar, then Control Panel, and then Performance and Maintenance.
3. Select Sony Notebook Setup. The Sony Notebook Setup window appears.
4. Make sure the About This Computer tab is open. Memory information is listed in the System Information box.

✍ The amount of memory displayed in the Sony Notebook Setup screen is not always correct. The video adapter uses some system memory, and that amount of memory does not appear as part of the total memory shown in the Sony Notebook Setup screen.

About the Software on Your Notebook

Your VAIO® notebook is ready to help you work, play, learn, and communicate as soon as you turn it on. This section provides you the following information:

- Overview of the Software on Your Notebook
- Application, Driver, and System Recovery CDs
- Using Your Recovery CDs

Overview of the Software on Your Notebook

Your computer may not be supplied with all of the software listed below, depending on the configuration you purchased. Preinstalled software may not be identical to retail versions, or include supporting documentation.

Adobe® Acrobat® Reader®
Adobe Systems Inc.
Acrobat Reader software allows you to view, navigate, and print electronic documents in Adobe's Portable Document Format (PDF), an open file format that is intended to preserve the fidelity of documents created on all major computer platforms.

ArcSoft PhotoPrinter® 2000 Pro
ArcSoft, Inc.
ArcSoft PhotoPrinter Pro software is an easy-to-use, yet advanced printing program that lets you quickly lay out multiple images in multiple sizes on a single sheet of paper. ArcSoft PhotoPrinter Pro software offers a wide selection of templates including landscape, portrait, free-style, mixed sizes, custom templates and more. The application includes enhancement tools and special effects for improving photos while giving you the ability to add text to any image. With ArcSoft PhotoPrinter 2000 Pro software you can create business cards, handouts, calendars, mailing labels, and much more.

Adobe® Photoshop® Elements (On selected models)
Adobe Systems Inc.
Using state-of-the-art image editing tools, you can unleash your artistic ability and create digital images for print, e-mail and posting to the Web. The versatile image capturing options allow you to start working with digital and traditional photos immediately. Explore endless creative possibilities for your personal images with Adobe Photoshop Elements software.

Adobe® Premiere® LE (On selected models)
Adobe Systems Inc.
Adobe Premiere LE software offers interface and editing tools for producing movies for video, multimedia, or the Web. View source clips and edited footage simultaneously on-screen. You can create your own personal video clips that are up to three hours in length, with complete audio-video synchronization.

America Online®

America Online, Inc.

America Online is a popular Internet online service. Stay in touch with family and friends with easy-to-use e-mail. Manage your personal finances, get the latest news and sports scores, and chat with thousands of others who share your interests.

DigitalPrint

Sony Electronics Inc.

This image management software makes it fun and easy to edit, import, and organize your digital pictures in a photo album for rich digital printing to any standard color laser or ink-jet printer. DigitalPrint can also be used to make custom CD labels for your audio CDs.

DVgate™

Sony Electronics Inc.

Connect a digital video camera recorder to the i.LINK® port and capture your own video clips and still images. You can edit clips from your video, add new clips, and combine clips into new movie segments. You can also save your images in a variety of popular file formats.

EarthLink Network Total Access®

EarthLink, Inc.

An Internet Service Provider that supplies access, information, and assistance to its customers, introducing them to the Internet. Member benefits include e-mail, newsgroups, a Personal Start Page, free storage space for your personal Web site, a member magazine, and 24-hour technical support.

EverQuest (On selected models)

Sony Online Entertainment Inc.

This introductory edition of EverQuest, a living, constantly evolving fantasy world, takes users to new heights of online role-playing gaming.

Microsoft® Office XP Professional (On selected models)
Microsoft Corp.
Microsoft Office XP software redefines the relationship between people and software by providing a smarter, simpler way of working. New Office XP software features include context-sensitive smart tags, enhanced formatting options, and more, that enable you to continually integrate additional services into Office and access information anytime.

Microsoft® Office XP Small Business Edition (On selected models)
Microsoft Corp.
With Microsoft Office XP system you'll find a powerful new technology that will help you get work done more quickly by providing real-time, context-sensitive options for important actions, from formatting to error correction. Task panes consolidate important tasks into a single integrated view, enabling you to conduct searches, launch and format documents, and view the contents of your Clipboard from one location.

Microsoft® Word (On selected models)
Microsoft Corp.
Microsoft Word makes it easy to create common Web, e-mail, and print documents for use around the world. It embraces HTML as a first-class file format and extends Word's ease-of-use to the Web and e-mail. Word also extends that ease-of-use to international users, making it easy to create multilingual documents.

MovieShaker™
Sony Electronics Inc.
Sony's original MovieShaker software creates personal movies that have transitions, background music, and text. Just import your video clips and "shake" with a click of the mouse. Your personal movies are easy to create and fun to share with family and friends.

PC-Cillin® 2000
Trend Micro, Inc.
PC-Cillin software provides portable, easy-to-use, real-time antivirus security at your computer's entry point (beaming, synchronization, Internet access) to defend against potential threats hidden inside files, e-mail, or on the Web.

PicoPlayer™

Sony Electronics Inc.

PicoPlayer software is a video player utility that enables you to use Giga Pocket™ Personal Video Recorder functions on a computer that does not have Giga Pocket Personal Video Recorder installed. You can play Video Capsules created by Giga Pocket Personal Video Recorder, and, if a Giga Pocket Server is available on your home network, watch TV streamed from the Giga Pocket Server and remotely control the Giga Pocket Server's TV programming functions.

PictureGear™

Sony Electronics Inc.

This image management software displays images from your hard drive, a Sony digital still camera, or a Sony Mavica® camera. The images appear in a convenient light-table format, so that you can easily view the contents of an entire folder.

Quicken®

Intuit Inc.

Quicken software is the fastest, easiest way to organize your finances. Quicken software works just like your checkbook, so it's easy to learn and use. You can even pay your bills online. Quicken software manages all of your finances, bank accounts, credit cards, investments, and loans.

QuickTime®

Apple Computer, Inc.

The versatile QuickTime software is used to play hundreds of different kinds of files, including video, audio, and virtual reality (VR) movies. You can play QuickTime files (referred to as "QuickTime movies") using QuickTime Player or any other application, such as a Web browser or word processor, that supports QuickTime software.

RealJukebox®

RealNetworks, Inc.

RealJukebox software is a popular digital music system that gives you the ability to easily acquire, play and manage digital music files. You can locate and download your favorite music from the Internet and organize your own personal music collection.

✍ If you use an external CD-ROM drive connected with a PC Card, connect the external CD-ROM drive before starting RealJukebox. Do not remove the CD-ROM drive while using RealJukebox. Either action may cause RealJukebox to shut down improperly.

Sony recommends using the SonicStage software's Record function to create any CDs on your VAIO® computer, if the specific model you purchased is preconfigured with all necessary components for CD-R and CD-RW capability. Downloading the optional RealJukebox CD-burning component to create any CDs on your computer may interfere with normal system operations.

RealPlayer®

RealNetworks, Inc.

RealPlayer software is a high-quality streaming media player that supports many digital media formats. The user-friendly interface has enhanced navigation capabilities, allowing you to access and enjoy audio and video programming over the Internet. RealPlayer software is your gateway to a superb Internet multimedia experience.

Smart Capture

Sony Electronics Inc.

Smart Capture is a fun new way to send multimedia messages via e-mail. Smart Capture manages the i.LINK® connection between your notebook and a Sony Digital Handycam® Camcorder that supports the i.LINK interface. It allows you to capture compressed video or still images and save them to your hard disk drive or share via e-mail. A smart solution for computer, digital audio/video and network convergence.

SonicStage™
Sony Electronics Inc.
This new jukebox application adds a host of new features to its predecessor, OpenMG™ Jukebox. Continuing to take advantage of Sony's copyright-protected ATRAC3™ format for high-quality digital audio storage, SonicStage software sports a new music visualizer, a sleek new player skin design, audio CD burning capability, and a parametric equalizer for fine-tuning audio playback.

Sony ScreenBlast™ ACID
Sony Pictures Digital Entertainment
With the powerful Sony ScreenBlast ACID software you can create royalty-free music by utilizing its loop-based production tool, including unlimited tracks and enhanced effects.

Sony ScreenBlast™ Sound Forge
Sony Pictures Digital Entertainment
Sony ScreenBlast Sound Forge allows you to record, edit, and process mono or stereo audio files for your multimedia or Internet projects. Whether you want to use a number of professional effects, convert video into streaming media, or synchronize audio to video — this software has everything you need to create rich, immersive multimedia and Internet content.

Sony on Yahoo!
Yahoo! Inc.
Personalize your own web portal with Sony on Yahoo! Get a free webmail account, customized news and local weather reports, comics, instant messaging, and more.

VAIO Action Setup
Sony Electronics Inc.
VAIO Action Setup manages the settings for your computer's Shortcut keys.

VAIO Support Agent (On selected models)
Sony Electronics Inc.
VAIO Support Agent provides immediate, interactive, online support with information about your preinstalled software and answers to frequently asked questions.

VisualFlow™

Sony Electronics Inc.

VisualFlow software is a state-of-the-art Sony multimedia browser designed specifically for Memory Stick® media. It displays any still picture, movie or sound file stored in a Memory Stick media in a visually pleasing, artistic manner. VisualFlow software not only plays a selected movie or sound file, but also enables playback of files by other applications like PictureGear™ or Memory Stick Slideshow.

WinDVD®

InterVideo, Inc.

WinDVD software is a simple-to-use DVD player including all the features you would expect to find in a standard consumer DVD player, while also offering advanced display and navigation features such as zoom, pan, bookmark, and time search.

Application, Driver, and System Recovery CDs

Your notebook comes with the following application, driver, and system recovery CDs. See "Using Your Recovery CDs" for information.

Application Recovery CD(s)
Sony Electronics Inc.
This CD enables you to reinstall individual applications if they become corrupted or are erased.

Driver Recovery CD(s)
Sony Electronics Inc.
This CD enables you to reinstall individual device drivers if they become corrupted or are erased.

System Recovery CD(s)
Sony Electronics Inc.
This CD enables you to restore the operating system and software that shipped with your computer if they become corrupted or are erased. This CD restores your computer to its original factory settings, so user data and applications installed since you started using your computer will be lost.

✍ To use the recovery CD(s), connect the docking station (supplied with selected models) or an optional optical drive, such as a fully atapi compliant PC Card CD-ROM drive, to the notebook.

Using Your Recovery CDs

The following sections describe how to use the Application Recovery, Driver Recovery, and System Recovery utilities.

To use the Application Recovery CD(s)

The Application Recovery CD(s) allows you to reinstall individual applications if they become corrupted or are accidentally erased. Reinstalling an individual software title may correct a problem you are experiencing with your notebook or software application; you may not need to reinstall the entire contents of your hard drive. If you need to reinstall all the software titles that shipped with your notebook, use the System Recovery CD(s). See "To use the System Recovery CD(s)" for more information. If you have any questions on using the Application Recovery CD, contact Sony Customer Support.

✍ You must be in Windows® to run the Application Recovery CD. If you have any questions on using the Application Recovery CD, contact Sony Customer Support.

1 Turn on your notebook. If your notebook is already on, close all applications.

2 When the Windows desktop appears, insert the Sony Application Recovery CD in the optical drive. The Application Recovery utility loads automatically.

3 When the Application Recovery menu appears, select the icon for the application you want to restore and then follow the on-screen instructions to complete the recovery process.

✍ Your system may include one or two Application Recovery CDs. If you have two Application Recovery CDs, insert the first CD to run the Application Recovery program. You may be prompted to insert the second CD, depending on the application you wish to restore.

To use the Driver Recovery CD(s)

The Driver Recovery CD utility enables you to reinstall individual drivers if they become corrupted or are erased. You can reinstall an individual driver to correct a problem that you are experiencing with your computer, hardware, or software application. VAIO Support Agent, an application repair utility, uses a vault feature on the Driver Recovery CD(s) to repair software applications.

✍ If you need to reinstall all of the software applications that shipped with your computer, use the System Recovery CD.

You must be in Windows® to run the Driver Recovery CD utility.

Reinstalling specific drivers with the Driver Recovery CD

1. Turn on your notebook. If your notebook is already on, close all applications.
2. When the Windows desktop appears, insert the Driver Recovery CD into the optical disc drive.
3. Click Start on the Windows taskbar, then click Control Panel. The Control Panel window appears.
4. Click Performance and Maintenance, then click System. The System Properties dialog box appears.
5. From the Hardware tab, click Device Manager.
6. Click to highlight the device for which you wish to reinstall the driver.

7 From the Actions menu, choose Properties. The Properties dialog box for that device appears

Properties dialog box

8 Click Reinstall Driver. The Hardware Update Wizard appears.

9 Click Next. The wizard will search for the correct driver on your Driver Recovery CD.

10 When the recovery process is complete, click Finish. Some drivers will require that you reboot the computer to complete installation.

To use the System Recovery CD(s)

The System Recovery utility formats your hard disk drive and restores all original software applications. Your computer is returned to the original factory settings.

> ⚠ **The System Recovery process removes all software that you may have installed since you started using your computer. Reinstall any applications that were not included with the computer when you purchased it.**

You can use the System Recovery CD(s) to reinstall the operating system and software titles that shipped with your notebook if they become corrupted or erased. You may not need to reinstall the entire contents of your hard drive. If you experience a problem with your notebook, reinstalling an individual device driver or software title may correct the problem. Use the Application Recovery CD(s) to reinstall individual applications or use the Driver Recovery CD(s) to reinstall device drivers. See "To use the Application Recovery CD(s)" and "To use the Driver Recovery CD(s)" for more information.

The System Recovery CD contains a backup copy of all the software originally installed on your hard disk drive. It can be used only to recover the hard disk of the notebook you purchased.

System Recovery options

- **System Drive Recovery —** All data on Drive C is deleted. The factory default settings and software applications are restored on this drive only.
- **Change Partition Size —** All partitions, custom installations, and changes are removed from the hard disk drive. You can set the partition sizes for both the Drive C and Drive D. The original, preinstalled operating system and software applications are restored.
- **Recovery to Original Factory Defaults —** All data and partitions are removed from the hard disk drive. All original factory settings, operating system, and preinstalled software is restored.

> ⚠ **The System Recovery utility does not back up your system's data. If you wish to retain your system data, perform a backup to an external media.**

Using the System Recovery CD(s)

Your system may take a few minutes to load necessary files. A blue screen appears during the downloading process.

1. Insert the Sony System Recovery CD in the optical drive. The System Recovery utility starts from the optical drive. The first CD must be in the drive when your turn on the computer.
2. Shut down your notebook as described in the "Shutting Down Your Notebook" section of your printed Quick Start.
3. Wait 30 seconds and turn on your notebook.
4. The VAIO System Recovery Utility dialog box appears. Click Next.
5. At the pop-up prompt, select Yes to begin the system recovery process. Follow the on-screen instructions.

If your notebook does not start from the Recovery CD

1. Press the power button and hold it for more than 4 seconds to turn off the notebook.
2. Turn on the notebook. When the Sony logo is displayed, press the F2 key. The BIOS setup menu screen appears.
3. Press the arrow keys to select the Exit menu.
4. Press the arrow keys to select "Get Default Values" and then press the Enter key. The message "Load default configuration now?" appears.
5. Check that "Yes" is selected, then press the Enter key.
6. Press the arrow keys to select "Exit" (Save Changes) and then press the Enter key. The message "Save configuration changes and exit now?" appears.

7 Check that "Yes" is selected, then press the Enter key. The notebook restarts from the Recovery CD.

✍ Your system may include one or more System Recovery CDs. If you have two or more System Recovery CDs, insert the first CD to run the System Recovery program. You are prompted to insert the next CD once the information from the previous CD has been installed.

The recovery process takes from 30 minutes to 60 minutes to complete.

After recovering your system using the System Recovery CD(s), you may be prompted to insert your Application Recovery CD(s) after restarting Windows. Insert the Application Recovery CD to automatically complete recovery of your system.

To recover Microsoft Word

If you recover your operating system using the System Recovery CD, Microsoft Word will not be recovered. Use the supplied Word CD-ROM to recover this application.

Troubleshooting

This section describes how to solve common problems you may encounter when using your notebook. Many problems have simple solutions, so try these suggestions before you contact Sony PC Support (http://www.sony.com/pcsupport). Consult the following sections:

- Troubleshooting Your Notebook
- Troubleshooting the Docking Station
- Troubleshooting the LCD Screen
- Troubleshooting the Mouse and Touchpad
- Troubleshooting Drives, PC Cards, and Peripheral Devices
- Troubleshooting the Software
- Troubleshooting i.LINK Devices
- Troubleshooting the Modem
- Troubleshooting Wireless LAN functions
- Troubleshooting Audio
- Troubleshooting the Printer

Troubleshooting Your Notebook

My notebook does not start.

- Check that the notebook is plugged into a power source and is turned on. Check that the power indicator on the notebook's front panel shows that the power is on.
- Check that the battery packs are inserted properly and are charged.
- If you are connected to a docking station with a floppy disk drive or an external floppy disk drive, make sure the floppy disk drive is empty.
- Confirm that the power cord and all cables are connected firmly, as described in the section "Connecting a Power Source" of your printed Quick Start.
- If the notebook is plugged into a power strip or UPS, make sure the power strip or UPS is turned on and working.
- If you are using an external display, check that it is plugged into a power source and turned on. Check that the brightness and contrast controls are adjusted correctly. See the manual that came with your display for details.
- Take the battery pack off the notebook, unplug the power cord and plug it in again, then turn on the power.
- If the power control button does not function, remove the AC adapter and battery pack and wait one minute, then reattach them and press the power button.
- Condensation may cause the notebook to malfunction. If this occurs, do not use the notebook for at least one hour.

My notebook starts but a BIOS error appears.

When the internal backup battery is low on power, your system may not start properly, and the message "Press <F1> to resume, <F2> to setup" may appear at the bottom of the screen. Follow these steps:

1. Press the F2 key. The BIOS Setup menu appears.
2. Set the date (month/day/year). Press the Enter key.
3. Press ↓ to select System Time, then set the time (hour: minute: second). Press the Enter key.

4 Press → to select Exit, then press ↓ to select Get Default Values. The message "Load default values for all SETUP items" appears.

5 Press the Enter key. The Setup Confirmation window appears.

6 Select Yes, and press the Enter key.

7 Select Exit (Save Changes), then press the Enter key. The Setup Confirmation window appears.

8 Select Yes, then press the Enter key. The notebook restarts.

✍ If this occurs on a regular basis, contact Sony Computing Support (http://www.sony.com/pcsupport).

My notebook starts, but the message "Operating system not found" appears, and Windows does not start.

- ❑ If you have connected a docking station with a floppy disk drive or an external floppy disk drive, make sure there is no floppy disk in the floppy disk drive (non-bootable).
- ❑ If a non-bootable floppy disk is in the drive, proceed as follows:
  1. Shut down the notebook, then remove the floppy disk.
  2. Restart the notebook and confirm that Windows starts properly.
- ❑ If Windows still does not start, follow these steps to initialize the BIOS:
  1. Remove any floppy disk from the floppy disk drive.
  2. Shut down the notebook.
  3. Remove any peripheral devices connected to the notebook.
  4. Turn on the notebook.
  5. Press the F2 key when the Sony logo appears. The BIOS setup menu window appears.
  6. Press the directional arrow keys to select the Exit menu.
  7. Press the arrow keys to select Get Default Values, then press the Enter key. The message "Load default values for all SETUP items" appears.
  8. Press the Enter key, and select Yes.

9 Use the directional arrow keys to select Exit (Save Changes), then press the Enter key. The message "Save configuration changes and exit now?" appears.

10 Select Yes, then press the Enter key. The notebook restarts.

If your notebook continues to display the message "Operating system not found," and Windows does not start, use your supplied System Recovery CD to restore the software titles shipped with your notebook. See "To use the System Recovery CD(s)" for more information.

The System Recovery CD restores your notebook to its original state, so user data and applications will be lost.

My notebook stops responding or does not shut down.

It is best to shut down your notebook using the Turn Off Computer command on the Windows Start menu. Using other methods, including those listed below, may result in loss of unsaved data.

- On the Windows® taskbar, click Start, select Turn Off Computer, and then click Turn Off.
- If your notebook does not shut down, press the Ctrl+Alt+Delete keys simultaneously and click Turn Off Computer on the Windows Security window.
- If the preceding step does not work, press and hold the power button for at least four seconds to turn off the power.
- Unplug the notebook from the AC adapter, and remove the battery pack from your notebook.
- If your notebook stops responding while playing a CD or DVD, press the Ctrl+Alt+Delete keys simultaneously, and click Turn Off Computer on the Windows Security window.

Pressing the Ctrl+Alt+Delete keys simultaneously or turning off the notebook with the power switch may result in data loss in files that are currently open.

My notebook is unstable.

Your notebook's operating system may become unstable if a lower power state, such as Hibernate, is initiated then changed before the notebook completely enters the lower power state.

To restore the notebook to its normal operating stability:

1. Close all open applications.
2. Restart the notebook by pressing the Ctrl+Alt+Delete keys simultaneously and clicking Restart on the Windows Security window.
3. If this procedure does not work, press and hold the power button for four seconds or longer to shut down the notebook.

The sound of my notebook's fan is too loud.

Use the PowerPanel™ utility to change the Thermal Control Strategy setting to Quiet. This setting slows down the CPU speed. See PowerPanel Help for more information.

To reduce fan noise

1. Right-click the CPU: Performance icon on the taskbar, and select Edit/Create Profiles. The AC Power Profile Editor window appears.
2. Double-click System to open the file if it isn't already opened.
3. Double-click Thermal Control Strategy - Performance, and select Quiet.
4. Restart your notebook.

Why does the System Properties dialog box display a slower CPU speed than advertised?

This is normal. Because your computer's CPU utilizes a type of CPU speed controlling technology, System Properties may display the CPU's current speed instead of the maximum advertised speed.

Troubleshooting the Docking Station

I cannot operate the optical drive in the docking station when the docking station is connected to the notebook.

To set the i.LINK® network switch:

1. Disconnect your notebook from the docking station.
2. Disconnect the AC adapter and all cables from your docking station.
3. Set the i.LINK® network switch on the bottom of the docking station to the unmarked side with a thin pen tip.
4. Connect the docking station to the notebook.
5. Turn on your notebook.

✍ Do not set the i.LINK network switch when the notebook is on. This causes the notebook to malfunction.

Set the i.LINK network switch after removing all cables connected to the docking station.

I cannot operate the optical drive in the docking station when the docking station is connected to the notebook and the notebook is connected to another computer via an i.LINK connection.

Set the i.LINK® network switch at the bottom of the docking station to the marked ● side. See "Connecting the Docking Station" for more information.

An error message appears while disconnecting the docking station, even after following the correct procedure for disconnecting the docking station.

Close the software in use, disconnect other devices being used, then try to disconnect the docking station from the notebook.

I cannot remove the disc.

You cannot remove the disc when the notebook is in power saving mode. Return to normal mode, then press the Eject button.

The disc tray does not eject even after I press the Eject button.

Open the tray by inserting a thin, straight object (such as a paper clip) in the manual eject hole.

Troubleshooting the LCD Screen

My LCD screen is blank.

- ❑ Verify the notebook is plugged into a power source and is turned on.
- ❑ Verify the power indicator on the notebook is on.
- ❑ Verify the battery pack(s) is inserted properly and is charged.
- ❑ The notebook may be in LCD (Video) Standby mode. Press any key to activate the screen.
- ❑ The display mode may be set to external display mode. Press and hold the Fn key while pressing the F7 key several times.

My LCD screen continues to show the previous screen.

Press the Windows key and D key twice to refresh the screen.

The image on my connected external display is not centered or sized properly.

Use the controls on your external display to adjust the image. See the manual that came with your display for more information.

I want to change the video resolution of my display.

1. Click Start, then Control Panel.
2. Click Appearance and Themes, then click the Display icon. The Display Properties dialog box appears.
3. Click on the Settings tab.
4. Move the Screen resolution slider to change your video resolution.

Troubleshooting the Mouse and Touchpad

My mouse does not work.

- If you are using an optional Sony PCGA-UMS1 series USB mouse, verify the mouse is plugged into the USB port. See "Connecting a USB Device" for more information.
- If you are still experiencing problems, use your supplied Driver Recovery CD to reinstall the mouse drivers. See "To use the Driver Recovery CD(s)" for more information.

My touchpad does not work properly.

- You may have disabled the touchpad without connecting a mouse to the notebook. To enable the touchpad:

  1. Press the Windows key and use the arrow keys to select All Programs. Press the Enter key.
  2. Use the arrow keys to select Sony Notebook Setup, and press the Enter key.
  3. Select Sony Notebook Setup again, and press the Enter key.
  4. Use the arrow keys to select the Touchpad tab.
  5. Press the Tab key to select Enable Touchpad, and then press Enter.

- Restart the notebook to activate the touchpad again.
- If your touchpad is interpreting a single tap as a double-click, adjust the button assignments. Follow these steps:

  1. Press the Windows key and use the arrow keys to select All Programs. Press the Enter key.
  2. Select Sony Notebook Setup, and press the Enter key. Select Sony Notebook Setup again.
  3. Select the Touchpad tab and press the Alt+S keys simultaneously.
  4. Make sure the Buttons tab is open, and change the button assignments in the Mouse Properties dialog box. Press the Enter key to save your changes and close the dialog box.

- If you are still experiencing problems, check that another mouse was not installed.
- You may need to use your Driver Recovery CD to reinstall the mouse drivers. See "To use the Driver Recovery CD(s)" for more information.

The pointer does not move when I use the Touchpad or Mouse.

- To restart your notebook:
  1. Press the Windows key.
  2. Press the "U" key to open the Turn off computer window.
  3. Press the "R" key to restart the notebook.
- If the notebook does not restart, press the Ctrl+Alt+Delete keys simultaneously. In the Windows Task Manager dialog box, click the Shut Down menu, and select Restart.
- If you still cannot restart your notebook, press and hold the power button for more than four seconds to shut down the notebook.
- If the pointer does not move while playing a disc, press the Ctrl+Alt+Delete keys simultaneously to stop playback and restart the notebook.
- If you are still experiencing problems, check that another mouse was not installed.
- You may need to use your supplied Driver Recovery CD to reinstall the touchpad or mouse drivers. See "To use the Driver Recovery CD(s)" for more information.

Troubleshooting Drives, PC Cards, and Peripheral Devices

My floppy disk drive cannot write to a floppy disk.

- If the floppy disk is write-protected, disable the write-protect feature or use a floppy disk that is not write-protected.
- Verify that the floppy disk is properly inserted into the floppy disk drive.

My optical drive is not playing my CD or DVD properly.

- Make sure the disc label is facing up.
- If the disc requires software, make sure the software is installed according to the manufacturer's instructions.
- A dirty or damaged disc may cause the notebook to stop responding while it tries to read the disc. If necessary, restart the notebook, remove the disc, and check the disc for dirt or damage.
- If you see video but cannot hear audio, check all of the following:
  - Check that your optical drive does not have the mute setting enabled.
  - Check the volume setting in the audio mixer.
  - If you are using external speakers, check the volume settings, and then check the connections between your external speakers and the notebook.
  - Click Start on the Windows taskbar, then Control Panel, then Performance and Maintenance, and then System. Select the Hardware tab, and click Device Manager. Check that the correct drivers are installed properly.
- Do not use adhesive labels to identify the CD. The label may come off while the disc is in use in the optical drive and cause the drive to malfunction.
- If a region code warning appears when you try to use your optical drive, it may be that the DVD you are trying to play is incompatible with the optical drive. Verify the region code listed on the DVD package.
- Condensation may cause the notebook to malfunction. If this occurs, do not use it for at least one hour.

My optical drive tray does not open.

- Make sure the notebook is turned on.
- Press the Eject button on the optical drive.
- If the Eject button does not work, open the tray by inserting a thin, straight object (such as a paper clip) in the hole to the right of the Eject button.

I cannot use Digital Video (DV) devices. The message "DV equipment seems to be disconnected or turned off" appears.

- Verify the DV device is turned on and the cables are properly connected.
- If you are using multiple i.LINK®* devices, the combination of the connected devices may cause unstable operation. In this case, proceed as follows:

  1 Turn off your notebook and all connected devices.

  2 Disconnect the devices that are not in use.

  3 Ensure that all other devises are properly connected.

  4 Restart your notebook.

My PC Card does not work.

- Check that the PC Card is installed properly.
- Check that the PC Card is compatible with Microsoft® Windows®.
- Use the Sony Notebook Setup utility to disable devices you are not currently using.
- Check that any necessary drivers were installed properly. See "To use the Driver Recovery CD(s)" for more information on installing the drivers.

Troubleshooting the Software

My software program stops responding or crashes.

Contact the software publisher or designated provider for technical support. See "Software Support Information" for contact information.

When I click an application icon, the message "You must insert the application CD into your optical drive" appears, and the software does not start.

- Some titles require specific files that are located on the Application CD. Insert the disc, and try starting the program again.
- Make sure you place the CD in the tray with the label side facing up.

The application cannot find a file while a PC Card is inserted.

When inserted in a notebook that is connected to the docking station, some PC Cards may change the drive letters of the disk drives in the docking station. If this occurs, an application you are using may not be able to find files.

To correct this condition perform one of the following steps:

- Remove the PC Card, and restart your notebook. Do not insert the PC Card while using that application.
- Change the drive letters of the disk drives of the docking station or of the PC Card. Refer to the Windows® help files or the application manuals to change the drive letters.

What software do I use for CD-R/CD-RW software functions?

Sony recommends using the preinstalled SonicStage software's Record function to create any CDs on your VAIO® computer, if the specific model you purchased is preconfigured with all necessary components for CD-R and CD-RW capability.

Downloading the optional RealJukebox CD-burning component to create any CDs on your computer may interfere with normal system operations.

Troubleshooting i.LINK Devices

I cannot establish a connection between two VAIO computers when using an i.LINK cable.

1 Disconnect the i.LINK* cable from both computers and reconnect it.

2 Wait for the computers to respond. If neither computer responds after a few moments, restart both computers.

✍ The computers may not recognize an i.LINK connection after returning from a power saving mode (Standby or Hibernate). If that happens, restart both computers to establish a connection.

* i.LINK is a trademark of Sony used only to designate that a product contains an IEEE 1394 connection. The i.LINK connection may vary, depending on the software applications, operating system, and compatible i.LINK devices. All products with an i.LINK connection may not communicate with each other. Refer to the documentation that came with your compatible i.LINK device for information on operating conditions and proper connection. Before connecting compatible i.LINK PC peripherals to your system, such as CD-RW or hard disk drive, confirm their operating system compatibility and required operating conditions.

Troubleshooting the Modem

My modem does not work.

- ❑ Check that the phone line is plugged into the line jack. See "Connecting a Phone Line" for more information.
- ❑ Check that the phone line is working by plugging the line in an ordinary phone and listening for a dial tone.
- ❑ Verify the phone number the program is dialing is correct.
- ❑ Verify the software you are using is compatible with the notebook's modem. (All preinstalled Sony programs are compatible.)
- ❑ If you are still experiencing problems, use your the Driver Recovery CD to reinstall the modem drivers. See "To use the Driver Recovery CD(s)" for more information.

My modem connection is slow.

Your notebook is equipped with a V.90 compatible modem. Many factors may influence modem connection speed, including telephone line noise or compatibility with telephone equipment (such as fax machines or other modems). If you think your modem is not connecting properly to other PC-based modems, fax machines, or your Internet Service Provider (ISP), check the following:

- ❑ Ask your phone company to verify your phone line is free from any line noise.
- ❑ If your problem is fax-related, check that there are no problems with the fax machine you are calling and that it is compatible with fax modems.
- ❑ If you are having a problem connecting with your ISP, check that the ISP is not experiencing technical problems.
- ❑ If you have a second phone line available, try connecting the modem to that line.

Troubleshooting Wireless LAN functions

I cannot use the Wireless LAN functionality.

Check if the Wireless LAN switch on the left side of the computer is in the ON position.

The computer cannot connect to a Wireless LAN Access Point.

- ❑ Check if the Wireless LAN switch on the left side of the computer is in the ON position.
- ❑ Check if power to the Access Point is on.
- ❑ Check if the Access Point is displayed in the “Available networks” window. Do the following:

  1 Click Start and select Control Panel.

  2 Click Network Connections.

  3 Right-click Wireless Network Connection and select Properties. The Wireless Network Connection Properties dialog box is displayed.

  4 Select the Wireless Networks tab, and check if the Access Point is displayed in the “Available networks” window.

- ❑ Connection availability is affected by distance and obstructions. You may need to move your computer away from obstructions or nearer to any Access Point you may be using.
- ❑ Be sure that the encryption key is correctly inserted.

I cannot access the Internet.

- ❑ Check the Access Point settings. Refer to the instructions supplied with the Access Point.
- ❑ Check if your computer and the Access Point are connected to one another.
- ❑ Move your computer away from obstructions or nearer to any access point you may be using.

The data transfer speed is slow.

- The Wireless LAN data transfer speed is affected by distance and obstructions between devices and access points. Other factors include device configurations, radio conditions, and software compatibility. To maximize the data transfer speed, move your computer away from obstructions or nearer to any Access Point you may be using.
- If you are using a Wireless LAN Access Point, the device may be temporarily overloaded depending on the number of other devices communicating via the access point.

The communication speed is interrupted or slowed down when MPEG2 data is transferred.

The typical effective data transfer speed via an Access Point is 4-5 Mbps when adhering to the IEEE802.11b standard. High-rate stream transfers with MPEG2 data may lower this rate further.

Data transfers are interrupted.

Data transfer interruptions may occur due to many factors. Connectivity is affected by distance and obstructions between devices and access points. Other factors include device configurations, signal conditions, frequency interference by other devices, and software compatibility.

- Check if the Access Point connection is intact.
- Move your computer away from obstructions or nearer to any Access Point you may be using.

Troubleshooting Audio

My speakers have no sound.

- If the built-in speakers are turned off, press the Fn+F3 keys or use the center Jog Dial control to turn on the speakers.
- If the speaker volume is turned to the minimum, press the Fn+F4 keys, then press ↑ or → to increase the volume, or you can use the center Jog Dial™ control to control the volume.
- If nothing is displayed when you press the Fn+F3 or Fn+F4 keys, proceed as follows:

  1 Click Start, and then Control Panel.

  2 Click Sounds, Speech, and Audio Devices. The Sounds, Speech, and Audio Devices window opens.

  3 Select the Audio tab, and click Advanced in the Sound Playback box. The Advanced Audio Properties dialog box appears.

  4 Make sure the Speakers tab is open, and the correct speaker setup is selected in the Speaker Setup box. Click OK.

  5 Click Volume in the Sound Playback box. The Volume Control dialog box appears.

  6 Make sure the mute check boxes are not selected in the Volume Control and Stereo Wide columns.

  7 Close the Volume Control dialog box.

  8 Click OK.

- Make sure the CD audio enable is turned on

  1 Click Start on the Windows® taskbar, and then Control Panel.

  2 Click Performance and Maintenance, and then System. The System Properties window opens.

  3 Select the Hardware tab and then click Device Manager. The Device Manager window opens, listing your notebook hardware devices.

  4 Double-click DVD/CD-ROM drives.

  5 Double-click the appropriate drive name.

6 Click the Properties tab.

7 Select the "Enable digital CD audio for this CD-ROM device" check box if it is not already selected, and then click OK.

- If your notebook is powered by batteries, verify the battery packs are inserted properly and are charged.
- If you are using an application that has its own volume control, verify the volume is turned up.
- Check the volume controls in the Windows® taskbar.
- If you connect external speakers:
  - Verify the speakers are properly connected and the volume is turned up.
  - If the speakers have a mute button, make sure the button is off.
  - If the speakers are powered by batteries, verify the batteries are inserted properly and are charged.
- If you have connected an audio cable to the Headphone jack, disconnect the cable.
- If you are still experiencing problems, use the Driver Recovery CD to reinstall the drivers. See "To use the Driver Recovery CD(s)" for more information.

My microphone does not work.

If you are using an external microphone, verify that the microphone is plugged into the Microphone jack. See "Connecting an External Microphone" for more information.

Troubleshooting the Printer

I cannot print.

- Make sure the power to the printer is on, and the printer cable is securely connected to both the printer and your notebook.
- The default setting for the printer port mode is correct for most printers. If you cannot print, try changing the printer port number.

  1 Click Start on the Windows task bar, and then Control Panel.

  2 Click Performance and Maintenance, then System. The System Properties dialog box appears.

  3 Select the Hardware tab, and click Device Manager. The Device Manager window appears.

  4 Double-click Ports (COM&LPT), and then ECP Printer Port (LPT1).

  5 Select the Port Settings tab, and choose a different LPT Port Number.

Your connected printer may not function after the notebook resumes from a power saving mode.

To reset the printer connection:

1 Click Start on the Windows taskbar, and select Control Panel.

2 Click Printers and Other Hardware, and then click Printers and Faxes.

3 Right-click on the icon of the printer that is not functioning, and select Properties to access the Properties window.

4 Click OK. The printer should now function properly.

Ensure that the printer is compatible with the Windows® operating system installed on your computer and that it has the correct printer drivers.

Getting Help

Sony provides you with several support resources to answer questions about your VAIO® notebook or the preinstalled software. Refer to these resources in the order they are listed.

- Support Options
- Software Support Information

Support Options

1	***VAIO® Notebook User Guide* and *VAIO® Notebook Quick Start*** The online VAIO® User Guide and printed VAIO® Quick Start provide you with information on how to maximize your notebook capabilities and solve common problems. To access the online User Guide, click Start on the Windows® taskbar, select Help and Support and click VAIO User Guide. The Quick Start is supplied with your notebook.
2	**Manuals and online help files that may accompany your preinstalled software** Most of the manuals for preinstalled software are located on your hard disk drive as online help files. You can access the online help files from the Help menu in the specific application. A printed manual is available for some applications.
3	**VAIO Support Agent** VAIO Support Agent can be accessed from the Windows desktop. Using advanced diagnostic technology, Sony's VAIO Support Agent runs scheduled protections of your applications, network settings, and other important software settings. When your software is protected, you can use VAIO Support Agent to repair software problems by restoring your software to any of the previously protected states.
4	**Sony Computing Support** Provides instant access to information on commonly encountered problems. Enter a description of your problem and the Knowledge Database searches for the corresponding solutions online. You can access the Sony Computing Support at: http://www.sony.com/pcsupport.
5	**Sony Fax-on-Demand** This service, which requires a fax machine or your fax software, provides answers to commonly asked questions. You can use this automated service to request a list of available topics then select the topics that you want to receive. To contact the Sony fax-on-demand service, call: 1-888-4-SONY-PC (1-888-476-6972).

6 Calling Sony Customer Support

Sony provides software support free of charge for 90 days after the original date of purchase. You can speak with a Sony Customer Support Representative without using your notebook by calling: 1-888-4-SONY-PC (1-888-476-6972).

Software Support Information

Adobe® Acrobat® Reader®, Photoshop® Elements, Premiere® LE (Adobe Systems Inc.)

Web site	http://www.adobe.com/
e-mail	techdocs@adobe.com
phone	206-675-6126 (fee-based support)
fax	206-628-5737
hours	M-F, 6 AM-5 PM (PST)

Apple QuickTime® (Apple Computer, Inc.)

Web site	http://www.apple.com
phone	800-275-2273
hours	M-F, 6 AM-6 PM (PST)

America Online® (America Online, Inc.)

Web site	http://www.aol.com
telephone	800-827-3338
hours	7 days a week, 24 hours a day

Arcsoft PhotoPrinter® 2000 Pro (ArcSoft, Inc.)

Web site	http://www.arcsoft.com
e-mail	support@arcsoft.com
phone	510-440-9901
fax	510-440-1270
hours	M-F, 8:30 AM-5:30 PM (PST)

EarthLink™ Network Total Access (EarthLink Network Inc.)

Web site	http://support.earthlink.net/
e-mail	support@earthlink.net
telephone	800-890-5128, 800-890-6356
hours	7 days a week, 24 hours a day

EverQuest (Sony Online Entertainment Inc.)

Web site(s)	http://www.everquest.com
e-mail	eqtech@soe.sony.com
phone	858-537-0898
hours	M-F, 8:30 AM-5:30 PM PST

Windows® Operating System, Word, Office XP Professional, XP Small Business (Microsoft Corp.)

Web site	http://www.sony.com/pcsupport
phone	888-4SONYPC (888-476-6972)*
hours	7 days a week, 24 hours a day

* Support from 1-888-4-SONY-PC is free of charge for 90 days after the original date of purchase.

PC-Cillin® 2000 (Trend Micro, Inc.)

Web site	http://www.antivirus.com/pc-cillin/support/
phone	949-387-7800; 900-820-8324*
hours	M-F, 8 AM-5 PM (PST)

* Support from 949-387-7800 is free of charge, but subject to delays. Support from 900-820-8324 is fee-based, but offers immediate response.

Quicken® (Intuit Inc.)

Web site	http://www.intuit.com/support
phone	900-555-4932; 800-644-3193*
hours	M-F, 5 AM-5 PM (PST)

* Support from 900-555-4932 is fee-based. Support from 800-644-3193 is automated and free of charge.

RealJukebox®, RealPlayer® (RealNetworks, Inc.)

Web site(s)	http://service.real.com/rjoptions.html
e-mail	http://service.real.com/help/call.html (online e-mail form)

Sony Applications (Sony Electronics Inc.)

Web site	http://www.sony.com/pcsupport
phone	888-4-SONY-PC (888-476-6972)*
hours	7 days a week, 24 hours a day

* Support from 1-888-4-SONY-PC is free of charge for 90 days after the original date of purchase.

WinDVD® (InterVideo, Inc.)

Web site	http://www.intervideo.com
phone	510-651-0888

Sony Service Center

For the Sony Service Center nearest you, call 1-888-4-SONY-PC (1-888-476-6972) or find Sony Customer Service on the Web at http://www.sony.com/pcsupport.

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